THE FINANCIAL POST

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Largest Circulation of All Canadian Financial Papers

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The Nation's Business

Dieppe New Honor For Canadians

Dieppe is a new honor for Canadians; a new reason for pride in being Canadian.

But the cost was very high. Early unofficial estimates are that casualties were perhaps more than ten per cent of our forces engaged. The figure is high for an operational foray; modest for a vital military operation.

The unhappy fate which let a German patrol detect the action and give the shore defenses more than half an hour's warning undoubtedly accounted for much of the loss.

Whatever was learned from the raid; whatever it has taught Canadians to do next time or not to do; whatever may be the final judgment about the raid, about its management and its effectiveness, one thing is now certain: the Canadians individually and together showed not only high skill and training but the fire and zeal which alone makes victorious troops. To that even the Germans have paid highest tribute.

There was no problem of Canadian national unity on the beaches of Dieppe. English and French-speaking regiments were side by side.

There was no question on the beaches of Dieppe as to whether Canada had a democratic army. The long casualty lists of officer personnel throughout all ranks attest their vigorous participation.

Because of their qualities of leadership and extensive training, the Canadian army and Canada will be much poorer.

CREDIT WHERE CREDIT IS DUE

Canada lost out very badly on the publicity about the Dieppe affair. This is the first major action in which Canadian troops were engaged and it was of the utmost importance for real unity of the United Nations that the part played by Canadian troops should have had just notice.

Early news reports of the foray suggested that this was a joint operation of British, Canadian, American and Fighting French troops. Now it appears that the Canadian part of the action was proportionately very large indeed. American forces were represented only by part of a battalion of fighting observers which means that they went along for the experience, fighting only if they had to in self preservation.

Yet, day after day, you could scan American newspapers read columns about this "United Nations" operation and see hardly a word about the Canadians. Hence, few Americans will know that Dieppe was very largely a Canadian operation.

Canada's war effort has been plagued not only by lack of publicity but from positively bad publicity from the very start. Most damaging in the United States of course, has been the Administration's dalliance with plebiscites, selective service and so on. This, plus enforced inaction of Canadian troops and Canada's failure to take steps which would assure far more Americans knowing what we are doing in the war effort, has resulted in a situation that is not only grossly unfair to the people of this country but which is certain to have serious results in the future unless very adequately and promptly corrected.

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AT LAST WE FACE MANPOWER PROBLEM

Why does the Administration require so much prodding and pushing? Why does it refuse so long to act on vital war problems that are obvious to all who will look at the facts? The Administration was elected to lead.

For over two years The Financial Post along with many other citizens has been urging the government to face and act on the manpower problem. The present crisis where we are face to face with a shortage of trained men for our fighting forces and skilled labor in our vital munition plants has been predicted repeatedly. We have pointed out that instead of winning the war we are in serious danger of losing it.

Now after many months of procrastination, Prime Minister King has announced that Ottawa is prepared to act, that shortly every able-bodied man and woman in the Dominion will be utilized, that the whole manpower problem will be concentrated under one single authority. We welcome this decision but pray that the delay in arriving at it will not prove fatal.

Back in the middle of June, 1940, just after Dunkirk, The Financial Post said this:

> **"To anticipate the need, and give Canadians an opportunity to make their contribution to the war effort, steps should be taken now to put mobilization of manpower in the hands of men of proven ability and experience—men who can get results and get them quickly."**

The only response was an expensive registration of Canadian citizens which later was pigeonholed, virtually no use made of it.

In November, 1941, with the Russians pushed back to the gates of Moscow, we pointed out that:

> **"In the kind of war we are facing we must have every one of our citizens in the job for which he or she is most fitted. We cannot afford any waste, any inefficiency, if we are to put the Nazis back where they belong. And we must face this complete re-allocation of manpower now."**

But again there was no effective official action, Mr. King arguing that he had not sufficient authority to take the necessary steps. He proposed a plebiscite. The Post stated in a leading editorial that:

> **"The Government doesn't need any further mandate. Mr. King was returned to power nearly two years ago for the sole purpose of pushing Canada's war effort to the uttermost . . . they were elected to lead our war effort, not simply to be pushed along with it."**

Early this spring when the Germans were preparing their gigantic squeeze through Egypt and the Caucasus, The Post uttered almost an identical warning to that given by Mr. King in his radio address last week. Said The Post:

> **"We are not winning the war. We are face to face with the possibility of losing it. Ultimate victory hangs by a mere thread. Time is not necessarily on our side, because we COULD lose the war before we could use the advantage of time."**

MAY THERE STILL BE TIME

And now let us look at the actual government record.

To demands that the manpower problem be placed in the hands of a single authority Mr. King made this statement in Parliament last March.

> **"It would not, however, be possible, even if it were desirable to centralize in one department of the Government all the administrative responsibilities for allocating manpower."**

Last week, however, the Prime Minister made it abundantly clear that he has now reversed his previous decision. He added:

> **"The United Nations have not yet begun to win this war. The danger is not only plainer than ever, it is greater than ever. We shall gain nothing by refusing to face the gravity of the situation."**

Months of vital time were required to convince Mr. King of a move that was obvious to most thinking Canadians almost from the beginning. Total war cannot be fought without total effort and total effort means the drafting of every able-bodied citizen for the fighting forces, the war factories or the farms. Canadians will be fortunate indeed if they are able to get through this war without paying dearly for the inexcusable procrastination of the Dominion government in facing up to our manpower problem.

Bacon Quota May Not Be Fulfilled

Canada Packers' Head Sees 60 Million lb. Deficit; Asks Hog Improvement Steps

It now appears that bacon shipments from Canada to the United Kingdom under the current 600 million lb. contract will fall short of the contracted quantity by more than 60 million pounds, states J. S. McLean, president of Canada Packers Ltd., in the company's annual report.

Mr. McLean traces the cause back to the second bacon contract let for the second war year amounting to 70,000 cwt. weekly at $15.82. This price compared with $18.02 a cwt. in the previous contract and discouraged many farmers, particularly in eastern Canada from staying in the hog business. Indication of this is seen from the fact that hog marketings in eastern Canada in 1941 were 2.9 millions against an estimated 2.6 millions for 1942.

Through the fact that feed supply is much nearer the western hog farmer, these producers enjoyed an advantage over the easterners so that they were able to raise their 1942 hog marketings by some 700,000 to a total of over 3.8 millions. Mr. McLean states, however, that if the price on the second bacon contract had been a wise one the western increase of 700,000 hogs might have been twice that number.

While price for the third contract was raised to $19.77 a cwt. and production encouraged, for a farmer to get back into hog production takes at least a year.

Need Three Million Hogs

To meet the appeal of Britain for 700 million pounds of bacon will require an increase in production of 1.5 million hogs. Mr. McLean notes that still more hogs are asked for. Because of the developing shortages of other important foods it would be extremely helpful, if Canadians were able to have as much pork product as they desired. To make this possible, at least a further 1.5 million hogs would need to be produced.

It is likely, then, that the Gov-

(Continued on page 2, col. 4)

Life Insurance Sales Higher

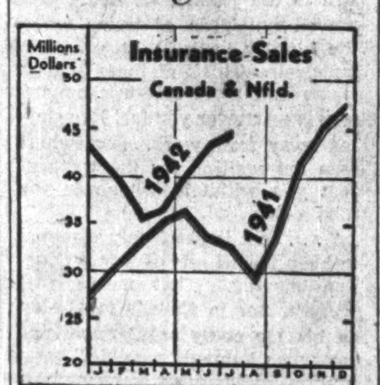


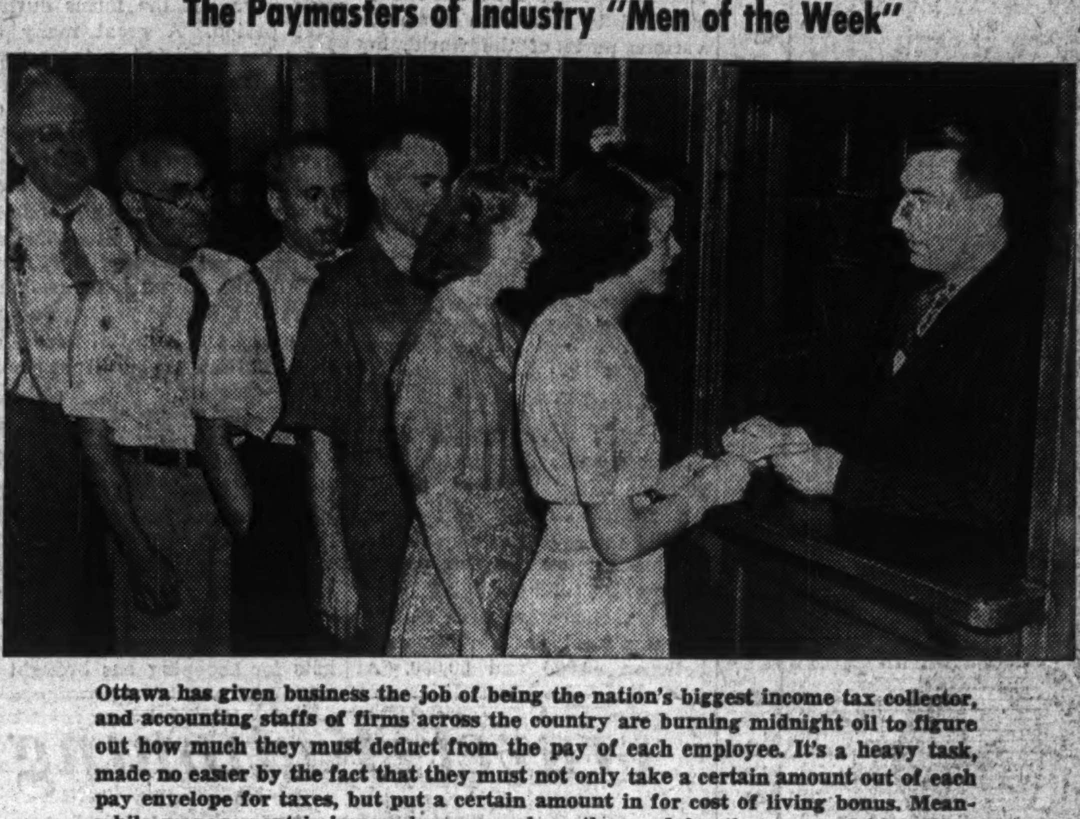
Chart by The Financial Post

Up to the end of July, new taxation had not cut into the steady growth of insurance sales in Canada and Newfoundland.

Total sales of ordinary insurance in the two countries in July were $44.8 millions, an increase of about 37% over the $32.6 millions for July, 1941. The aggregate for the first seven months at $283.6 millions is 23% higher than for the same period last year.

The gains were shared in by all provinces and Newfoundland, the percentage increases ranging from 6% in Prince Edward Island to 64% in Alberta.

The Paymasters of Industry "Men of the Week"



Ottawa has given business the job of being the nation's biggest income tax collector, and accounting staffs of firms across the country are burning midnight oil to figure out how much they must deduct from the pay of each employee. It's a heavy task, made no easier by the fact that they must not only take a certain amount out of each pay envelope for taxes, but put a certain amount in for cost of living bonus. Meanwhile management is impressing on workers the need for the new and high taxes imposed by the government, and asking them to accept these taxes willingly, as part of their contribution to the war effort. The pay wicket, pictured above, from now on will have a second purpose—tax wicket.

New Job Priority Plan For Industry Shapes Up

By STAFF WRITER

OTTAWA. — Accompanying the new manpower control orders which become effective Sept. 1, local employment offices throughout Canada are expected to have available at that time the new priority ratings which will attempt a new, specific classification of wartime plants and industries on the basis of wartime essentiality.

Present intention is not to make these priority ratings public, but merely to place them in the hands of local selective service officers for their guidance in channelling and directing the ebb and flow of industrial labor.

Eventually it is expected that these same priority schedules will be used largely as the basis of deferment decisions for men drafted into the armed services. Thus, once the present draft machinery is transferred from the Department of National War Services to the Department of Labor, the same general yardstick of "essentiality" will be applied both to industrial placement and army service.

Four Ratings

The priority schedules are four in number: very high, high, low and unclassified.

A. (Very High) will name one or two specific industries (probably coal and base metal mining) and a number of individual plants whose work is considered of an absolutely essential nature.

B. (High priority rating) will include the names of a few specific industries (newspaper publishing for example) plus a smaller number of individual firms deemed to have a high essentiality.

C. (Low priority) will consist entirely of a wide range of industries with no specific firms mentioned.

D. All other industries will be grouped in this category and given "no" priority rating so far as manpower is concerned.

Many difficult and complex situations remain to be ironed out and it is not expected that the list will remain static for more than a few weeks at a time. The original list

(Continued on page 2, col. 1)

$50 Millions More Deposit Notes

By STAFF WRITER

OTTAWA.—Issuance this week by the Dominion Government of an additional $50 millions of deposit certificates brings the total of these borrowings in the past five weeks to $305 millions.

Together with earlier short-term borrowings from Canadian banks (about $400 millions) the total amount of "residual" inflationary borrowing from this source now amounts to just over $700 millions.

First issue of deposit certificates was announced on July 29 for $75 millions The same amount was borrowed the following week (Aug. 4). On Aug. 11 an additional $55 millions was borrowed. On Aug. 18 and Aug. 25 the amount of certificates negotiated was $50 millions respectively.

The most recent issue carries the same interest rate (¾ of 1%) and matures Feb. 23, 1943.

Power Plans To Be Ready For Sept. 20

Restricted Non-essential Use Affects All Areas — Blanket Order Will Assure War Needs

From Our Own Correspondent

MONTREAL. — Non-essential use of hydro power will suffer a "dim-out" around Sept. 20 next.

H. J. Symington, Power Controller, has been working on plans for some time to ensure that Canada's war industries will not suffer from lack of power this winter.

Several schemes already have been arranged, but the official order has not yet been issued, due to the fact the Power Controller intends to issue one blanket order covering all restrictions and not those affecting just one industry or section of the population.

Plans call for restricted use of electricity in Quebec, eastern and southwestern Ontario. They also will be applied to Saint John, N.B.; Halifax, probably Winnipeg and Vancouver, with Calgary a possibility.

This is in line with forecasts made in The Financial Post during the early part of July.

Draw on Newsprint

Principal non-war industry affected will be pulp and paper, and par-

(Continued on page 2, col. 6)

Major Shakeup In Dept. of M. & S.

Sweeping changes struck the Department of Munitions and Supply this week.

Appointment of Harry J. Carmichael, former director general of gun production as supreme coordinator of all Canada's war production is interpreted here as a highly significant move in Canada's war supply effort.

Behind a very brief press release lies a far-reaching change in emphasis designed to give production increased importance and to introduce a new co-ordination not previously attempted in this country.

F. H. Brown relinquishes his post as assistant deputy minister, Department of Munitions and Supply, to become financial advisor.

E. J. Brunning becomes director general of gun and ammunition production, a position formerly held by Harry Carmichael.

The Industries and Subcontract Co-ordination Branch remains directly under Mr. Carmichael.

It's Your MONEY

......that the government is trying to save through appointment of Col. John Thompson as Director of Government Office Economies Controls.

From government offices there come daily mountains of pamphlets and publications; their preparation takes time, effort and money; they consume a vast quantity of materials; their distribution puts another heavy load on the Post Office Department. Among Col. Thompson's responsibilities will be decision on what publications are necessary, where news releases can be reduced.

War needs have forced reduction in manufacture of mechanical office equipment. Col. Thompson has the power to effect savings by more economical use and distribution of typewriters and other machines through government offices for both war and civilian purposes.

Central Control For Newsprint Makers

$400 Million Industry Moves to Stabilize Position As Government Prepares to Reduce Use of Electricity and Manpower

By JOHN E. LANGDON

MONTREAL. — Centralization of control over Canada's $400 million newsprint industry is expected shortly. Some 100,000 people, dependent upon the industry for all or part of their livelihood, will be affected.

Object of the new centralized control is to effect the shift of electric power and manpower to war industries, to smooth out the inequalities caused by the projected shift, and to aid the adjustment of communities where paper plants have been closed, many of which are completely dependent on the local plant.

Charles A. Vining, at present Newsprint Controller, will be responsible for directing this huge industry provided he does not take on the job of looking after Canada's wartime publicity both at home and abroad.

Power Immediate Problem

Most immediate and serious problem facing the industry is the plan to curtail deliveries of power, essential to manufacture of newsprint paper.

This power is needed to meet the ever-growing demands of the aluminum and other essential industries. The available supply will be short of meeting peak requirements next winter. Non-essential use must be limited. A deficiency must be made up by the pulp and paper industry, especially the newsprint section.

Many of the Quebec and Ontario mills will be asked to give up power, particularly those in the Saguenay, St. Maurice Valley, Ottawa-Gatineau, eastern and southwestern Ontario areas.

Mills in these districts have an annual capacity of 2,350,000 tons of newsprint paper, or better than half of that for the whole industry. Working at capacity Quebec mills require 615,000 h.p. and those in Ontario 145,000 h.p., or a total of 760,000 h.p.

At present these mills are working at about two thirds of capacity and employing in the neighborhood of 500,000 h.p.

Take Only Part

While it will not be necessary to take all this power away from the newsprint industry, a substantial block will have to be given up. Ontario Paper Co. and Beaver Wood Fibre Co., both at Thorold, Ont., have been notified of the likelihood of their having to give up all or part of their power supply when conditions warrant. Similar notice has been given to Quebec mills.

Need War Workers

Several meetings already have been held with Elliott Little, director of Canada's manpower programme. A committee of 10 has been set up to work on the problem—five of the members represent the employers and the balance labor.

Incidental to hydro and manpower are the problem of supplies, transportation, etc., which are now begin-

(Continued on page 2, col. 1)

Niagara Industries Form Planning Pool

Taking the view that initiative as well as co-operation must be forthcoming from industry, an organizing committee in the Niagara area is now well advanced on plans for an entirely new type of industrial council. It is to serve that area in which over 200 different industries, covering a wide range of production, are located.

Transformation of Canada's industrial economy into a war machine operating at a radically altered tempo, as committee members explain, must and does produce a crop of internal problems which industry itself must handle. Ottawa is, so to speak, writing the music but it is industry which must play the tune.

For the Niagara-St. Catharines district, they visualize an institute which can act as a clearing-house for information both to and from Ottawa, interpret regulations in terms of plant practice, and pool experience for the benefit of the whole region. With so many war and essential industries concentrated in a relatively small area and now meeting individually, one after the other, such problems as housing, trucking and shipping facilities or power, it is felt that such a development is logical and natural. In many of these, the problems of the individual industry and of operating divisions within each industry from management to rank and file, are basically the same.

Citing as an example, the Division of Simplified Practice, Wartime Prices and Trade Board, the committee notes that the primary objective there is to effect economies in industrial production and in the distribution and marketing of goods. The purpose of this is to maintain the price ceiling, and also to conserve materials for essential use.

But to achieve the result in any given case, there must be intimate knowledge of the day-by-day conditions under which each plant operates. As well, there must also be accurate data on how this particular instance fits into the broad production and business picture in Canada.

This calls for a liaison service between the industry on the job and the regulating bodies administering all business in the national interest. Such a service, the Niagara-St. Catharines group believes, is essential not only for efficiency of industrial production but also for the efficiency of government administration and co-operative application of regulations by government and industry.

In its formative stages, Dr. H. G. Fox, K.C., chairman of the Lincoln County War Finance Committee, is acting as chairman of the organizing group and H. C. Blenkhorn of English Electric Co. of Canada Limited as general secretary.

See Milk Subsidy Costing $5 Millions

By STAFF WRITER

OTTAWA—The price ceiling milk subsidy, which cost Canada some $3 millions in the first four months of 1942 is expected to cost between $5 and $6 millions for the eight-month period (September-April).

The subsidy was originally put into effect Dec. 22, 1941, as a temporary measure pending adjustments which would relieve the "squeeze" on producers and distributors. It was withdrawn at the end of April.

The new subsidy is for a smaller amount (25 cents instead of 30 cents per 100 pounds) but will probably remain in force until next April to prevent the threatened shortage of milk which might otherwise have occurred.

Dieppe Raid "Invaluable"

Casualties Estimated at Around 10%

By STAFF WRITER

OTTAWA. — Unofficial summing up of the Dieppe raid in military quarters here is that Canada's nine-hour "sample" of withering coastal hell-fire has gained invaluable information.

First we have learned something about the main defensive system of the Germans and their tactics, weapons and other equipment. Secondly, and of equal importance, we have learned just how our own invading machinery will stand up under actual battle. In other words Dieppe should give the staff that information which must be a prelude to any successful "second-front" operation in western Europe.

Because the attacking forces were "spotted" by a Nazi patrol boat, one half to three quarters of an hour before the first landing party reached shore, the Canadians gained their experience under the worst possible conditions. When they arrived, the coast defenders were ready for them.

Despite this, the Canadians are felt to have achieved extraordinary success, bringing back information of first-rate importance to the United Nations. Dieppe they consider a "sample" raid of the type which will probably increase.

No information has been given out as to how many Canadians participated in the raid. But a fair assumption would be that each of the seven named units which co-operated were at or near full strength of possibly 800 to 1,000 men. This would indicate that possibly 6,000 to 7,000 Canadian troops were engaged.

On the basis of casualty lists announced up to midweek (608, of which 93 were killed, 390 wounded and 125 missing) the Canadian forces suffered a battle loss of roughly 10 per cent. This is considered high in relation to "normal" war tactics, but not high in relation to the exceptionally hazardous job which Canadians were given to do. It brings sharply into focus the current manpower problem which will be further greatly aggravated if battle casualties of this order are to be inflicted on Canadian troops from now on.

There is natural disappointment here that initial dispatches announcing the raid did not give more credit to the Canadian Army which formed the spearhead of the attack. Two reasons cited for this failure are (1) the natural desire of U. S. correspondents feeding their own services to play up the fact that some American soldiers had touched French soil for the first time in this war; (2) the fact that arrangements for the raid and for attendant publicity were in charge of the British War Office. Accordingly official releases were probably circumscribed for that reason.

Some 22 newspapermen accompanied the party.

There is every desire to continue this type of personal reporting of news events, but there is a feeling in official quarters here that some of the newspaper reports were unnecessarily harrowing, especially for the bereaved.

Ilsley Pleads No Pay Boosts

By STAFF WRITER

OTTAWA.—Within the past few days, Canada's indefatigable Finance Minister, Hon. J. L. Ilsley, has been bringing his war finance message to no less than 18,000 war finance workers and employees representatives in the key cities of Toronto, Windsor, London, Hamilton, St. Catharines, Welland, Niagara Falls and Kingston.

In a few days he will undertake a similar trip to key areas in Quebec province.

Aim of the mass meetings has been twofold (a) to explain the new income taxes; (b) to urge the need for continued and increased voluntary savings.

While the meetings have been ostensibly to address newly enlisted workers in the nation-wide war finance organization, an underlying

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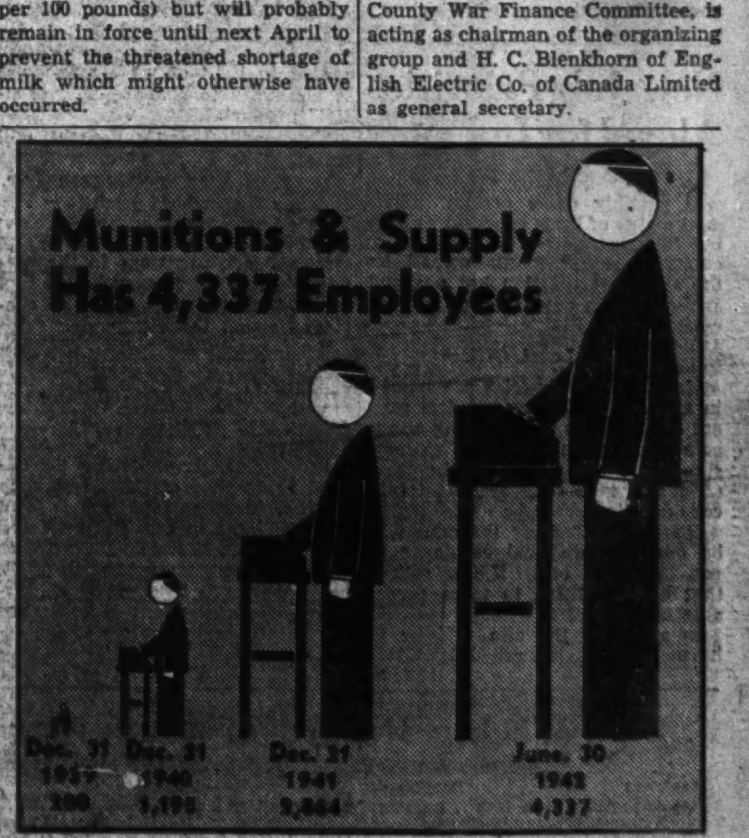

Chart by The Financial Post

Reflection of the mighty growth of Canadian industry's war production is the expansion of the Dominion Government's Department of Munitions and Supply. Under its old name of War Supply Board, the Department maintained only three employees on July 18, 1939. Half way through 1942, the number had grown to 4,337, with vastly extended powers.

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The War and Business . . .

Lease Lend Reversed

Entry of the United States into the war has caused a slight upheaval in lease-lend. Until recently all the trade was one way, the U.S. the sole producer, the U.K. the receiver. But in the last few months, it seems, such a flow of British munitions and equipment and some local food have been supplied to American troops in various parts of the world, but especially in the British Isles, that talks have had to be initiated at Washington in regard to payment. Accounts of these will now be used to partially offset the flow of American goods the other way. Similar talks will also be staged with Australia and New Zealand which have also been supplying local American forces with food, equipment and services.

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Our Growing Navy

Canada's navy now numbers 450 ships and will soon total 550, Defense Minister Ralston told an American audience this week. And of the 450 vessels a substantial number are real men-of-war, the present total including 12 destroyers and more than 80 corvettes. Total naval strength is between 40,000 and 50,000. At the beginning of the war Canada's navy amounted to a mere 15 ships and 1,800 men.

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Farm Labor Crisis

Total of farm labor in Canada has decreased over 13% since the war began, an official survey shows. In actual numbers it is estimated that close to 150,000 men have left the farms during that period. A great many of these have enlisted in the armed forces, the remainder mostly into munitions work. As a result of the decline Canadian farmers have been forced to utilize a great deal more of their own family help and also high school students from the cities during the rush period. In the eastern half of the country the peak of harvesting is now passed, but on the prairies it is in full flood and will continue so until at least mid-September.

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Basket Shopping

As part of their war effort, merchants of Grimsby, Ont., organized a "shop with a basket" campaign. In 10 days they distributed 1,200 baskets to their customers. According to a survey just completed by the Grimsby Chamber of Commerce the use of these baskets for shopping has brought a 65% reduction in wrapping. The merchants attached to parcels carried by customers a cartoon sticker in patriotic colors bearing the slogan: "To help win the war I CARRY this package." Other communities are inquiring about the scheme, with the idea of following Grimsby's lead.

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Industry in Double Squeeze

Here's a sample of what Canadian industry is up against. In the industrial city of Sault Ste. Marie, population 25,000, the labor shortage is estimated at over 2,000. And this despite the fact that for the first time women are being used in the heavy steel industry located there. Another complication is a growing shortage of electric power, with the seasonal peak still three months away.

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Open Irish Ports?

Washington reports claim a change of sentiment in Ireland and now there is a distinct possibility of De Valera opening ports for the use of the United Nations. This, of course, might be a partial opening only, perhaps to the extent of allowing entry of war materials but not warships and armed forces.

Travel Rationing Planned

Ottawa Discusses Ways of Halting Unwanted Boom

By STAFF WRITER

OTTAWA. — Ways of rationing railway passenger travel in Canada are under active discussion here by various governmental authorities.

On the basis of presently available statistics, it is estimated that 45 to 50 million passengers will be carried by the Canadian railways in 1942. Though falling short of the 1920 peak of 51 million passengers, this will be an increase of 50% over 1941 and 125% over 1939. In May, 1942 (latest official monthly figure available) the number of passengers carried was 80% higher than May, 1941.

Estimated receipts from passenger travel in 1942 are placed at between $85 and $90 millions. This is more than double the amount spent by Canadians on passenger travel in 1940. It compares with $36 millions spent annually before the war.

Translated into terms of coal, equipment, manpower and materials now urgently required for the war effort, this huge increase in travel is looked on here as war boom which can no longer rise unmolested. What is being considered is some way of limiting unnecessary passenger travel so as to conserve fuel, equipment and manpower to the greatest possible degree.

To-date, only two restrictive orders have been issued affecting railway passenger travel. Most important of these was the recent order by Transport Controller T. C. Lockwood prohibiting reduced railways fares. An indirect curb has been the transportation tax, raised from 10 to 15% in the last Ilsley budget.

Working out an equitable plan for rationing railway passenger travel presents many difficulties. There are many control agencies interested. The WPTB is interested in the problem because of its responsibility for conserving coal, and its responsibility for administration of transportation as a "service."

The Wartime Industries Control Board is interested because of fuel conservation and because it has a finger in the Transit Control pie. T. C. Lockwood (who is nominally Canada's Transport Controller) is responsible to neither of these control authorities but reports directly to the Department of Transport. In the near future, Manpower Director Elliott M. Little may enter the picture because of the possibility of releasing manpower through curtailment of non-essential rail services.

Though most of the coal burned by Canadian railways is due to freight haulage, latest available statistics show 1.8 million tons of bituminous fuel were used in 1940 for hauling passenger trains. This figure is probably higher by anywhere from 10 to 30% at the present time.

Most passenger trains average from seven to nine cars and carry (on average) 50 passengers. The railways could therefore greatly increase their number of passengers without a corresponding increase in fuel consumption. But much of the increased travel is in congested areas and once trains are filled up, most additional demands are presently being met by adding more trains or more cars.

Bacon Quota May Not Be Fulfilled

(Continued from page 1)

ernment will appeal to the farmers to produce 3 million more hogs this crop year. One favorable aspect for such an increase is that hog output depends on feed, and Canada seems about to harvest one of the heaviest crops in history. However, labor is also needed and the farmer is already hard pressed. If the production called for is realized, the increase must come chiefly from western Canada, says Mr. McLean, as leadership in hog production has already passed to that area.

The Canada Packers' head discusses the need for hog improvement, calling this issue one of the most important single factors in the outlook for Canadian agriculture. Quality of Canadian bacon must be maintained if it hopes to hold postwar markets. Canada is already producing on a scale which involves a surplus over domestic requirements of at least 80,000 hogs per week. At the end of the war unless the British market can be held, the Canadian hog industry would face a severe crisis, perhaps catastrophe. Mr. McLean declares that after the war, Canada must ask Britain for a market for at least 80,000 hogs weekly. However, the Dominion would have no hope of getting such a concession unless Canadian bacon were equal in quality to the best procurable from other countries. Mr. McLean declares that a senior government officer should be assigned to the special job of hog improvement.

Beef Shortages

The recent acute beef shortages are attributed to three principal causes:

1. Owing to full employment, purchasing power was high.
2. Demand was further increased by the heavy requirements of military camps. (Military requirements have recently been five million pounds monthly.)
3. As against these extra demand conditions, supply, during the winter and spring months, was short. Fewer cattle than usual had gone into the feed lots. As events turned out, all the feed-lot cattle could have been consumed in Canada. Instead of this, abnormally heavy shipments went to United States. In May and June an acute shortage of beef developed. Many shops for days on end were entirely without beef.

The most disturbing feature of this period was the development of an extensive "black market" in both the processing and retailing branches of the trade. Live cattle sold at prices much above the equivalent of the beef ceiling. Reputable processors, and retailers, lost heavily; those who disregarded the ceiling did a record volume at high profit. The Canada Packers' report cites this experience as demonstrating the difficulty of enforcing ceiling in respect of essential foods, in a period of acute shortage.

New Attack on Absenteeism As Work Losses Mount

By STAFF WRITER

OTTAWA.—Plans are under way here for a frontal attack on "absenteeism" which is costing the Canadian war effort tens of thousands of tons of badly-needed coal each month, as well as other vital war materials.

It is charged that coal mining areas in eastern and western Canada are losing in some cases as much as a quarter to a third of needed production by "men off" or by failure of key producers to report for work, thus preventing coal from being mined.

No figures are available as to the effect of absenteeism on the entire Canadian production but in one coal mining area it is reported that a recent check showed production off 25% from what might have been produced had all the available men reported for work. One report showed 6,000 tons of production lost in one day due directly to absenteeism. On Saturdays, when the men work one, instead of two shifts, as many as 35 to 45% of "key" producers have been reported absent from work in recent weeks.

Reports to Ottawa indicate that in addition to previous contributing causes there is a growing amount of "income tax" absenteeism, in coal mining areas especially. It is feared that this may spread widely after new tax deductions are made in September, unless a new and improved "morale" can be built up to offset it.

What is reported is that men work four days, then quit for the week because, they figure, anything extra over and above the four days pay would only go to the government in income tax.

Not "On the Job"

Just a few days ago a personal message was sent to each coal miner in Canada and signed by J. McG. Stewart, Coal Administrator, pointing out that in June and July, thousands of hours were lost in Canada because miners "were not on the job." Pleaded Mr. Stewart:

"This lost time that can never be made up, represents tens of thousands of tons of coal. That coal is still in the ground. It would have moved hundreds of trains across the country loaded with vital war materials. Think of those held-up trains and those side-tracked materials whenever you feel like staying away from work. Somewhere men are waiting for the weapons that you withhold whenever you miss a day.

". . . coal is absolutely essential to keep the wheels of war production moving. That means that every miner in Canada must stay on his job every regular working day when humanly possible."

Next Victory Loan Drive In October

By STAFF WRITER

OTTAWA.—Decision is expected to be reached early in September as to the exact date and nature of the next big Canadian war loan drive.

Most opinion seems to favor opening the drive on October 12. An alternate date is October 19. Provincial leaders of the National War Finance Committee are expected to gather in Ottawa during the first week in September at which time plans and arrangements will be finalized.

Power Plans For Sept. 20

(Continued from page 1)

ticularly the newsprint section.

Ontario Paper Co. and Beaver Wood Fibre Co., both of Thorold, Ont., an area particularly short of power for war purposes, were warned of the impending cutting off of power.

They are not the only operators which will be affected, contrary to an impression created by the Hon. Mitchell Hepburn. Quebec mills also are very much involved in the plans of the Power Controller.

Electricity for use in neon lighting and outdoor signs is definitely out. This ruling will apply to daytime as well as evening use.

Commercial lighting will be substantially reduced. Shop windows will no longer be ablaze with light at night-time.

Consideration is being given to limiting domestic use of electricity. In so far as Quebec is concerned, domestic consumption is such a small fraction of the total that any savings effected would have little bearing upon the general situation.

The situation is just the reverse in Ontario. There the domestic load accounts for a large proportion of the total load and a saving of 10 or 15% would release a large quantity of power for war use.

Certain measures already have been taken in respect to domestic use, such as domestic hot water heating in the area served by Ontario Hydro.

Other schemes covering domestic service are in mind, but there are almost insuperable difficulties in the way of making them effective. However, some of them may be tried.

Outside of Ontario and Quebec the Power Controller's plans to restrict non-essential use of electricity are not likely to have any great effect.

The shortage of power is in the two central provinces. The amount which must be "picked up" to meet next winter's requirements is difficult to estimate with any degree of accuracy, as much depends upon the time when the aluminum and other war industries bring their new productive facilities into operation.

While the immediate power supply is acute nevertheless the situation is far from being unfavorable.

Extensive new power installations are now under construction.

Ilsley Pleads No Pay Boosts

(Continued from page 1)

reason for the Ilsley personal appearance tour is the knowledge that much educational work must be done in a hurry to win the support of wage earners in respect of the new deduction at the source income taxes.

What is feared is that absenteeism and militant action for higher pay will be stimulated as a result of the heavy tax deductions that go into effect next month.

What Mr. Ilsley hopes to do, is to contact as many employee representatives as possible and give to them personally his message as to the size of the job which Canada is tackling; and some assurance and evidence that the income taxes deductions are not really as bad as many employees have feared.

The other part of Mr. Ilsley's job is to stress the point that refundable taxes represent only a very small portion of the total fiscal requirement of the government and that the introduction of this small dose of "compulsory" saving must not be interpreted as abandonment of the need for voluntary saving.

The importance of these meetings is indicated by the fact that in the eight Ontario centres covered in the initial Ilsley tour there are upwards of 200,000 workers engaged directly in war work apart from other wage-earners in all other services and industry.

HOLD HIGH THE TORCH OF FREEDOM

Recruiting Patriotic Dollars At 500 Canadian Stations

Every branch of the Bank is a "recruiting station" for Canadian dollars whose owners wish to serve their country.

At any one of our 500 Canadian branches you can buy war savings stamps and certificates, and obtain full information regarding war loans.

Enlist to the full extent of your ability to help win the victory for freedom.

BANK OF MONTREAL

"A Bank Where Small Accounts Are Welcome"

Modern, Experienced Banking Service... the Outcome of 124 Years' Successful Operation

SIMPSON'S ADVANCE SELLING OF COATS FOR MEN

Brings You Overcoatings From Famous English, Scotch, and Irish Mills

Overcoatings by Gibson and Lumgair — Kynoch — Raceview — T. & J. Taylor — Superb British fabrics that have built world-wide prestige for texture, design and coloring. And the fabrics are only part of the story! Every coat is tailored in Simpson's own workroom, with better tailoring features that mean extra wear, extra warmth, extra style. Choose your overcoat from Simpson's Advance Selling now!

Simpson's
THE STORE FOR MEN
— SECOND FLOOR.

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United Securities — Indications marketwise are that the plan of reorganization will be approved by the bondholders when they meet on Sept. 10. Reflecting this belief, the bonds are now bid at 94. Following the default of interest, the bonds sold for less than 40.

Consolidated Paper Corp. reports that during July 60 shares of the capital stock were issued in payment of interest, bringing the number of shares outstanding to 2,560,945.

Central Control Planned For Newsprint Industry

(Continued from page 1)

ning to loom up as major influences on newsprint operations.

The social problems created by the closing down of a mill are of tremendous importance, not only to the operator, but to the municipality and province involved.

Problem facing the industry is how best to utilize the capacity not crippled by power or manpower demands so as to produce sufficient newsprint tonnage to take care of market requirements.

Allied to it is the matter of compensation for those plants which are affected by these new conditions.

It is understood representations have been made to the government pointing out the inequalities that are likely to develop and suggesting an equitable arrangement be made.

The problems involved are gigantic. Because of the varied interests involved, any attempt to solve them by a committee arrangement would be foredoomed to failure. There never has been a time when the newsprint industry agreed unanimously on a policy, even when the problems were less trying than those now faced.

New Job Priorities Ahead for Industry

(Continued from page 1)

will possibly name certain individual plants of large concerns as having high manpower priority, while excluding other plants owned by the same organization but engaged exclusively in peacetime or civilian work.

Up to Local Officer

If firms or industries are named in a certain category and feel they are entitled to a better rating either as a whole or in individual circumstances, it will be up to the local officer to take such argument into consideration.

Generally speaking the onus will be on the individual employer to convince the local N.S.S. officer that he is entitled to more favorable consideration.

In all cases the aim will be to have the priority schedule interpreted in light of what manpower is necessary to produce an "essential" product.

Thus, advertising (as such) will probably be found at or near the bottom of the priority schedule. But any firm whose product is in a higher category and which can demonstrate that certain advertising salesmen are necessary to the production, sale or distribution of that product, should be entitled to consideration on those grounds.

Insurance Conference Cancelled Due to War

In view of war conditions the annual conference of the Association of Superintendents of Insurance of the Provinces of Canada scheduled for Sept. 14 to 17 has been cancelled. Official announcement to this effect has been made by Hartley D. McNairn, superintendent of insurance for Ontario and secretary of the association.

Brandram Paint Earns Interest

Revenues Maintain Record Pace Established in 1941 Business Year

From Our Own Correspondent

MONTREAL. — Operations of Brandram-Henderson Ltd. for the first six months of the current year show an appreciable further improvement. Although sales for 1941 represented the peak for many years, sales for 1942 have been maintained at the same high level.

While a number of factors will affect net earnings for the current year, higher taxes, increased cost of raw materials, higher wages and the recent increase in the cost of living bonus, it is expected earnings will be at least comparable with 1941, based on the results for the first half of 1942.

Bond Interest Covered

The position of the company's 6% bonds appears to be substantially improved, particularly in view of the fact that half the 1942 bond interest requirements are already available from 1941 earnings. The trust deed provides that until 1946, the excess earnings of any one year, over and above the 6% bond interest, shall be earmarked and be applicable to payment of bond interest for the next year.

It is understood net earnings for the first six months of 1942 are more than sufficient to provide for balance of the full year's bond interest for 1942.

Weekly Record of Financing in Canada

SALES BY MUNICIPALITIES, PROVINCIAL AND DOMINION GOVERNMENTS

Municipal	Date Issued	—Sold to—	Rate	Due	Amount	Price	Yield
Sainte Anne de Bellevue, P.Q. ..	Aug.	L. G. Beaubien & Co.	4%	1943-62	$36,000	101.65	.....
Toronto Harbor Commissioners (Guar. by City of Toronto) ..	Aug.	Wood, Gundy & Co., A. E. Ames & Co., Dominion Bank and Royal Bank	2½% 3% 3¼%	1943-49 1950-57 1958-62	1,925,000 2,200,000 1,375,000	100.288	.....
Fort William, Ont. (Guar. McKellar General Hospital)	Aug.	Fairclough & Co.	3½%	1943-47	45,000	100.67	.....
Laval Sur-le-lac, P.Q.	Aug.	Alliance National	4%	[illegible]	[illegible]	100	4%
Dominion							
Canada Treasury Bills	Aug.	....	...	Nov. 13, '42	$45,000,000	99.867	.534%
Canada Deposit Certificates	Augg.	Chartered Banks	¾%	Feb. 23, '43	50,000,000	100	.....

This Week The Financial Post Asks

Should we draft unmarried and childless women for war work?

E. H. Adams

Vice-president and Treasurer, B. C. Power Corp., Vancouver.

As they have already drafted certain classes of women in Britain for war work, it is my opinion that such a step will be necessary in Canada in the near future, because there appears to be no other course available. In British Columbia we are suffering from an acute shortage of agricultural help in the dairy and fruit farms which may jeopardize our food supply.

Women could be trained to work on such farms just as the land army girls have been in Britain and just as girls have been trained for industry. Some nationwide appeal to women to enlist for work of any kind should be made as soon as possible.

• • •

Katie Broad

Editorial staff, Telegraph-Journal, Saint John, N.B.

I would favor compulsory drafting of single and childless women for aid in the factory, farm or other war emergency. The women have sought equal citizenship rights and I believe they would welcome any opportunity to help make Canada's war effort an "All-Out" for victory. The women are drafted for war service in England and we heard recently of the war factory built in England in record time because a woman had the contract. Canadians voted for compulsory war service for men and with the life of the nation at stake the service of women should also be compulsory.

• • •

W. H. Carter

President and General Manager, Winnipeg Electric Co., Winnipeg.

In my opinion, compulsory drafting of single and childless women for aid in factory, farm and other war emergency work should be only done after the elimination, as far as practical, of all non-essential business operations and the absorption therefrom by industry and the farm of the men released. In fact all male help now in such non-essential business operations, or idle, should be regimented and put to work. Let us first call for volunteer women for such work and release the men for positions where they will do most good.

• • •

H. P. Davidson

Editor, The Acadian, Wolfville, N.S.

I would favor compulsory drafting of single or childless women if their services are required. From the start of the war I have favored the drafting of all able bodied persons in Canada, both men and women, and the placing of them in the kind of work where they can best help in bringing about victory. This is a struggle in which all must do their share if victory is to be attained, and I feel sure women workers can play a large part.

• • •

A. B. Dunlop

The Press, Neepawa, Man.

I approve one hundred per cent the proposal calling for drafting single and childless married women for factory, farm and emergency work to help the Canadian war effort.

Henry Emo

Guardian, Verdun, Que.

Yes, we are in favor of compulsory drafting of single and childless women providing they are not engaged in war work.

The situation is such that both factory and farm work are essential to war industries just as our boys fighting over there have to be fed, clothed and equipped.

The city of Verdun boasts the highest quota of enlistments of any city of its size in the Dominion and I am sure that the wives and sisters of those enlisted will come out as loyal to the British Empire as our boys who have given up everything for the cause of Democracy.

• • •

Amelia Haley

Prominently associated with women's Catholic organizations in the Maritime Provinces, Saint John, N.B.

I favor compulsory drafting only under the following conditions:

(A) Absolute imperative need.

(B) Enactment of protective measures safeguarding health, morals and welfare of drafted women who are the potential mothers of Canada's citizens.

(C) Careful placement of individuals in positions suitable to their physical and mental strength and ability.

(D) Exemption for women supporting dependents, young, aged or ill, thereby eliminating unnecessary disruption of homes as well as the care of such dependents by either institution or state.

(E) Exemptions also for women engaged in teaching profession, their duties fulfilling a patriotic work of vital importance today.

I would definitely oppose compulsory drafting of mothers.

• • •

Priscilla Hazen

Editorial staff, Montreal Standard.

I think that all available men should be drafted first for overseas as well as civilian service. Then in war emergency, draft the single or married women and pay them the same as you would men if they take masculine jobs.

• • •

Dr. Marion Hilliard

Well known woman physician, Toronto.

I am definitely in favor of compulsory drafting of single and childless women for work in the factory, farm or any sphere which is involved in our present emergency. Furthermore, I think it should be begun immediately in order that the factories turning out essential war products will not be hindered by labor shortage.

Women are anxious to help and are only happy when they are busy, therefore, if they are made to realize that they are indispensable to the carrying out of our production programme they will co-operate to the fullest extent, but I believe that this realization will only come by compulsory drafting.

• • •

A. L. Horton

The Observer, Vegreville, Alta.

I do not agree with compulsory drafting of women as outlined in your telegram. Get the men first. Women in this district have been volunteering for service readily and steadily but I cannot say the same for young men of service type. I would be opposed to compulsion of the kind you mention until you clean up on the men, but I would go easy in both cases. My district is entirely agricultural and just now is in a bad mess owing to lack of harvest help.

• • •

R. L. King

Local Press, Claresholm, Alta.

I am sure the women of Canada would accept compulsory drafting of single and childless members of their sex into necessary war work providing the powers that be exert the intestinal fortitude to exhaust compulsory measures upon Canadian men for active service and on through vital war industries. We have observed that Canadian women as a whole are anxious to place their services to the advantage of Canada's war effort and are only awaiting authoritative direction into the most useful channels. I believe such a move would vitalize Canada's war effort.

• • •

Mrs. A. E. Mathewson

Editorial staff, the Gleaner, Fredericton, N.B.

Personally I am strongly in favor of single and childless married women being taken for army work in whatever field they are best suited.

It is only through combined womanpower behind manpower that this war can and must be won. It is every woman's duty to do her utmost in this time of strife to release men for the army, air and sea forces.

The women have been undergoing training to fit them for any emergency and now is the time for them to show their mettle. This is a women's war as well as a man's and it is the bounden duty of every woman to come to her country's aid.

• • •

A. R. Mosher

President, Canadian Congress of Labor, Ottawa.

The Canadian Congress of Labor is convinced that because of the lack of co-ordination of war production and a sound labor policy, including provision for labor management, production committees and industrial councils, manpower is not now being efficiently utilized and Canada is not getting value for the enormous expenditure. Labor is not permitted to share in determining war production policies and governments and managements refuse to accept proffered co-operation for total war effort.

Only when the present manpower has been fully and effectively utilized will it be necessary to conscript single and childless inexperienced women for the factory or other work.

• • •

R. M. Ross

Amherst Daily News, Amherst, N.S.

It is imperative that all Canadians, men and women, take a complete part in the war effort. Single and childless women are capable of playing a vital part in war industries, farm work and other war essentials. It is time for pussyfooting to stop and practical orders under intelligent leadership issued.

The compulsory drafting of single and childless women is apparently necessary in view of the general manpower situation. It would also allow room for the married women to offer their services in war work or vital business.

• • •

C. F. Sise

President, Bell Telephone Co., of Canada, Montreal.

Compulsory drafting of women should be resorted to only if and when the voluntary system results in definite labor shortages for essential war work. I think the voluntary supply can be greatly expanded by appeals for women workers on patriotic grounds. The Director of Selective Service should have the authority to draft single women when the voluntary supply is exhausted.

• • •

Marion Thomson

Chief librarian, Toronto Daily Star.

In spite of the appeals made recently for war workers, few women yet realize how desperate the situation is. There are thousands of women in Canada who would gladly help if they knew how urgent the work was, and where and how to find it.

I would favor compulsory drafting of single and childless women based on the September registration of women. The compulsion would bring home to the women the seriousness of the need for war workers and would solve the problem of how and where to apply for work. For an all-out war we should have an all-out effort.

• • •

Marjorie L. Stewart

Prominent in Y. W. C. A. circles, Toronto.

I would be in favor of compulsory drafting only if by no other means could we obtain an All-Out war effort. Before going to this length I would be more in favor of appealing for volunteer help to single and childless married women who are not now engaged in work which is essential.

I'LL WORRY ABOUT MY LABOUR PROBLEM WHEN I HAVE ONE!

THAT'S IVORY TOWER THINKING

When labor unrest occurs, management is often the last to know of it. For labor trouble springs from small things — from minor complaints that grow in the telling. Management, high in its ivory tower, hears the rumble of discontent only when the rumble has become a roar.

Now, with an enforced labor peace created by the war, is the time to cement good feeling between management and worker.

Somerville House Magazine Dept. men are trained to produce employee papers tailor-made to your business.

Write for a copy of the Somerville Link.

Employee Magazine Dept.

PACKAGING Somerville DISPLAYS

LONDON · TORONTO LIMITED MONTREAL · WINDSOR

OFFSET AND LETTERPRESS PRINTING · A COMPLETE MARKETING SERVICE

A Complete Service for Management-Labor Harmony.

New Wartime Regulations

Special Post Summary Latest Rulings From Ottawa

As a new feature, The Financial Post is publishing a weekly resume of orders issued by the Wartime Prices and Trade Board and the Department of Munitions and Supply.

These orders have a vital bearing on business and individuals, and are bringing marked changes to the economy of the country and the lives and habits of the people. They are thus something on which every person should keep posted.

To make this easy, The Post is presenting them in abbreviated form. In each case the number of the order and the name of the responsible administrator or controller is given for the benefit of those who may want to write the proper official for fuller information or for an interpretation of various clauses.

Following is a digest of orders received in the last week:

VINEGAR JARS. W.P.T.B. order A-345, Aug. 8, revokes the order prohibiting the manufacture of glass vinegar jars of one half or one gallon size or glass vinegar containers for more than 40 fluid ounces. Adm. of glass, H. R. Harrison.

• • •

DOGFISH LIVER. W.P.T.B. order 169, Aug. 11, revokes order 94 which placed the dogfish liver industry under control. It means that dogfish liver is no longer subject to price ceiling. Signed by Donald Gordon, W.P.T.B. chairman.

• • •

MILK AND MILK PRODUCTS. W.P.T.B. order 165, Aug. 13, amends order 124 so as to provide that wholesalers may handle certain milk products used in manufacturing. The original order prevented this. Signed by Donald Gordon, W. P. T. B. chairman.

• • •

VENETIAN BLINDS. W.P.T.B. order A-335, Aug. 13, amends the regulation covering the color in which Venetian blinds made of wood may be finished and permits some types of such blinds to be painted green. Adm. of Furniture, James E. Ferguson.

• • •

VARNISH RESINS. W.P.T.B. order A-332, Aug. 13. No person may use natural varnish resins in manufacture or processing of any barn paint, freight car paint or road marking paint, with the exception that one half lb. of batu gum per gallon of solid, may be used in the road marking paint.

• • •

PACKAGING. W.P.T.B. order A-336, Aug. 13, regulates the way in which fibreboard containers or corrugated fibreboard containers may be packaged by the manufacturers. Adm. of Shipping Cases, F. C. Hayes.

• • •

SHELLAC. W.P.T.B. A-333, Aug. 13, restricts the use of shellac to purposes set forth in a schedule and requires manufacturers and jobbers to make reports as to their stocks. Adm. of Fats and Oils Phyllis G. Turner.

• • •

HAIRPINS. W.P.T.B., order A-340, Aug. 14, limits the length of metal hairpins or metal bob pins to two inches, designates type of wire which may be used in their manufacture, and limits the amount of wire a manufacturer may accumulate. Adm. of Fabricated Steel & Non-Ferrous Metals, H. H. Foreman.

• • •

QUEBEC PULPWOOD. W.P.T.B. order A-337, Aug. 14, fixes a price ceiling for pulpwood sold in the Province of Quebec. Timber Adm., A. S. Nicholson.

• • •

NOVA SCOTIA PULPWOOD. W.P.T.B. order A-338, Aug. 14, fixes the maximum prices for pulpwood cut in Nova Scotia. Timber Adm., A. S. Nicholson.

ONTARIO PULPWOOD. W.P.T.B. order A-141, Aug. 14, fixes the ceiling prices for pulpwood sold in Ontario. Timber Adm., A. S. Nicholson.

• • •

LADIES' FELT HATS. W.P.T.B. order A-343, Aug. 17, prohibits the manufacture of wool felt hoods for women's hats by the "capeline" process. Adm. of Women's and Children's Wear, J. A. Klein.

• • •

TIN PRICES. W.P.T.B. order A-344, Aug. 17, establishes ceiling prices for tin of various purities. Adm. of Non-Ferrous Metals (Primary) G. C. Bateman.

• • •

FUELWOOD. W.P.T.B. fuelwood orders 27 and 27, Aug. 17, set a maximum price for fuelwood in a number of Ontario counties and districts. Coal Adm., J. McG. Stewart

• • •

USED CLOTHING. W.P.T.B. order A-334, Aug. 17, sets out a schedule of ceiling prices for used clothing sold at retail. Adm. of Used Goods, S. Godfrey.

• • •

STEEL RIVETS. W.P.T.B. order A-350, Aug. 19, sets out a schedule of sizes for the manufacture of steel rivets, and provides that a manufacturer shall be entitled to add a service charge for rivets not conforming to these sizes. Adm. of Fabricated Steel, H. H. Foreman.

• • •

STOVE AND MACHINE NUTS. W.P.T.B. order A-351, Aug. 19, specifies sizes for the manufacture of any stove nuts or machine screw nuts. Odd sizes may be turned out in lots of not less than 15,000 identical pieces for a single destination. Where odd sizes are required in smaller lots a manufacturer shall be entitled to add a service charge. Adm. of Fabricated Steel, H. H. Foreman.

• • •

STOVE BOLTS. W.P.T.B. order A-348, Aug. 19, establishes a schedule of sizes and specifications for stove bolts. Odd sizes may be manufactured in lots of not less than 15,000 identical pieces for a single destination. Where odd sizes are needed in lots of less than 15,000 pieces, the manufacturer shall be entitled to add a service charge. Adm. of Fabricated Steel, H. H. Foreman.

• • •

Montreal Light Heat & Power Cons. reports $8,744,350 of its 3% convertible note certificates have been exchanged into 3% first mortgage bonds, par for par. Early in the year the company made an offer of exchange, which was to be binding provided 50% of the noteholders accepted. At the end of last year there were outstanding $14,910,200 of the 3% notes, so that the number exchanged is well in excess of the 50%.

Ask for a copy of our booklet

"Your 1942 Income Tax"

Now ready for general distribution.
It tells you what you need to know.

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Executors :: Trustees :: Financial Agents

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TORONTO
80 King Street West

SPECIAL TYPES OF HEAT TREATMENT

ONTARIO RESEARCH FOUNDATION

43 QUEEN'S PARK, TORONTO

RIDE-DRIVE-WALK...
POSTER ADVERTISING MEETS WAR-TIME CONDITIONS

It doesn't matter how people travel — it's not how, but how many.

In buses and street cars, automobiles and shoe-leather, bicycles and buggies — whether afoot or a-wheel, people see Poster Advertising.

Since 1939, outdoor traffic in every major Canadian Marketing center has increased with production and distribution. Bus and street car travel is up. Pedestrian traffic is up. Automobile traffic is down but is offset by the increase in passengers per car, or by other means of travel.

- More people are travelling daily to and from work.
- More people are out shopping.
- More people are going to war-time social activities.
- More people are at movies and other recreational centers.

They Can't Escape

POSTERS

POSTER ADVERTISING ASSOCIATION OF CANADA

80 Richmond St. W. - TORONTO

Investment in Our New Ally

Canadians Have An Important Stake in Brazil

As Brazil this week lined itself up in the war against the Axis the United Nations gained a new and important ally, investors a safeguard that has been felt lacking for years.

Holdings of South American bonds in Canada are important, but where Canadian investment power is most felt is in Brazilian Traction, Light & Power Co. This great utility of southeastern Brazil is a Canadian enterprise, many of its seven million odd shares are held across the Dominion.

For years, Canadian holders of Brazilian Traction have worried about the government in Brazil, conjured up dreams of expropriation, furrowed their brows over alleged Nazi sympathies in the great South American republic. With Brazil now definitely fighting on our side most of those worries have vanished.

A Market Feature

For weeks Brazilian Traction has been one of the most outstanding features of a sluggish Canadian stock market. Based on continuing improved earnings and an easing foreign exchange situation, the stock moved up to 11⅝, high for the year. When Nazi torpedoes slammed into five Brazilian ships in a week and feeling against the Reich mounted throughout the republic, the stock market hedged its bet in Brazilian Traction and let the price slip back close to 10. As the final step to war was taken, price of the shares was back to around 10½, market action was quiet.

While Brazil's entry into the war resolved certain doubts and fears over the Traction stock no buying spree was evident. While market psychology toward Brazilian is now better in certain directions than it has been for years, market traders weigh hard facts against nebulous hopes; they know that for Canada war has meant high taxes, lower company profits. They wonder if this too will come in Brazil.

Years of Improvement

Background for the recent improvement in the price of these particular shares is substantial. Brazilian common has been a long time speculative favorite in Canadian markets, in 1929 it got up to 82. Best it has done since then was 30¼ in 1937's junior bull market, worst was 3¾ in 1940. Last year's net of $1.87 a common share stacked up against 1940's $1.31, 1939's $1.30, 1929's record $2.67 a share. Company's assets of $478 millions are up almost $100 millions during the past decade. In the same period funded debt has been cut some $30 millions, working capital increased from $15.6 millions to $33.7 millions.

Exchange Situation

Catch in the Brazilian situation so far as dividends have been concerned has been the republic's tight foreign exchange situation; it couldn't spare the cash for dividends to foreign shareholders. Brazilian stopped its regular dividends in July, 1938. By last year-end the republic's position had improved sufficiently to allow Traction to hand out 40 cents a share to its shareholders; this July another 40 cents was paid.

Behind those two dividend payments of Brazilian Traction lies a story of a great nation still largely undeveloped.

Develop Export Picture

A wide-scale rearrangement is helping to smooth out Brazil's economic picture. Here is how the export situation has recently changed:

	Raw materials	Food-stuffs	Manu-factures
	percentage of total exports		
1939	41.5	57.7	0.8
1940	43.2	54.2	2.6
1941	48.3	46.2	5.5

Backbone of Brazil's export trade has always been coffee, in recent years cotton has taken an important place. But markets for these two products were uncertain; a bad coffee export year meant practical disaster for Brazil's financial position. That condition pointed the way to diversification. Toward that goal this is what Brazil has done in its export field:

	Coffee %	Cotton %	All other exports %
1935	52.6	15.8	31.6
1936	45.5	19.1	35.4
1937	42.0	18.5	39.5
1938	45.0	18.2	36.8
1939	39.9	20.5	39.6
1940	32.1	16.9	51.0
1941	29.9	15.0	55.1

Trade Balance Improves

In 1941 Brazil reported a favorable trade balance of 1.3 million contos of reis as against an unfavorable balance of 3,611 centos of reis for 1940. In the first four months of 1942 this trend continued. The possibility exists that shipping difficulties have played a larger part in Brazilian exports recently.

A wide field exists for development of Brazil's natural resources. One step toward this was recently taken by the agreement with the U. S. whereby the latter will advance up to $14 millions to complete the railway from Victoria to Minas Geraes where the Itabira Iron Ore Co. has 18,000 acres with an estimated iron-ore reserve of 500 million tons. Its principal property alone contains 111 million tons of hematite with 68% iron ore content.

With more American money a new steel plant is being built 90 miles from Rio de Janeiro that will increase steel production from the present 150,000 tons a year to 350,000 tons, one-half of Brazil's steel requirements.

Ford in Rubber

Cutting off our crude rubber supplies from the Far East has turned attention toward Brazil's possibilities in this direction. In 1912 Brazil produced 42,000 tons of rubber, recently output has been around 18,000 tons annually. Large scale experiments led by the Ford organization are proceeding in Brazilian rubber.

In the mineral field Brazil produces around 100,000 tons annually of manganese, about 4% of world output. Rich deposits of nickel and chrome are said to be present.

Brazil's climatic conditions allow it to produce a wide range of vegetable oils, most important being cottonseed and linseed oil, while its oiticica oil substitutes for China's tung oil.

Under the pressure of wartime necessity many of Brazil's foreign assets may be at least partially thawed out. Anything in that direction would mean strengthening of the republic's economy, a consequent strengthening of the position of investments in that country.

Exchange Vastly Improved

Significant from the standpoint of the great change from the days of tight exchange conditions is the mid-July report of L. S. Glass, Canadian commercial attaché at Rio de Janeiro:

> "The position as regards available exchange is reported to be better than for many years past, due to the increasing demand for Brazilian export commodities. Brazil is probably building up a reserve of foreign exchange which will tend to a great extent, if not entirely, to compensate for the adverse conditions which obtained over a long period in the past. Exchange is promptly available for all bona fide imports."

Director of Manpower Outlines Programme

Steps planned by Ottawa to alleviate the manpower shortage were outlined by Elliott M. Little, director of national selective service, at the annual convention of the Trades and Labor Congress of Canada in Winnipeg. The programme calls for complete control of working manpower and Mr. Little intimated that it will include "a new method of calling up men for the army." He did not amplify this last statement. Here are excerpts from his address.

"The registration of unemployed males taken in the first week in June indicated that, to all intents and purposes, there is no unemployment in Canada. Some 98,000 registered as unemployed or not gainfully employed in that registration. Of that 98,000 only about 60,000 are presently considered as fully employable. Since the June registration many of the 60,000 have become employed . . .

"There are three principal remaining sources of man- and woman-power; first, the more extensive use of women in essential services and production; second, the curtailment of less essential industries and occupations so that workers may be released for more essential work; third, the improvement in the efficiency in use of those already employed in essential industries . . .

"We must eliminate all non-essential work or work which can be avoided by proper planning . . . new work, wherever possible, will be placed in areas where workers can be housed without additional construction. Factory space and living accommodation should, and probably will be, expropriated to accomplish this end . . .

"If we fail to correct labor turnover and absenteeism, then it means a more severe curtailment or shutdown of less essential industry, with all the dislocation and inconvenience which that involves . . . Within a few days we will issue orders which will impose additional controls over the movement of labor . . .

"We shall issue another order taking over the control of advertising for help . . . With 'help wanted' advertising uncontrolled, we have the ridiculous situation where one war industry is stealing men from another war industry . . . With some common-sense exceptions, we shall within a few days issue an order that an employer cannot discharge an employee and an employee may not quit his or her position without seven days notice . . . An order will be issued making it compulsory for an employable unemployed male person to accept work of high essentiality . . .

"We are setting up, where necessary, manpower advisory committees by industries, appointed by the director of national selective service. These will advise and make recommendations to the director of national selective service on manpower problems . . .

"Labor, on its side, should demonstrate a greater appreciation of the difficulties which face management . . . It has been no bed of roses for the employers.

"I am urging Canadian employers to improve their relations with their employees, to set up joint committees to share more of their heavy responsibilities with their workers. As director of national selective service, I cannot and will not let our policy or our organization be exploited as a screen for the promotion of trade unions, which naturally wish to extend their membership, nor will we allow it to be used by employers as an instrument with which to fight organized labor . . .

"Nothing should be done by the worker or the trade union unjustly to undermine management. Conversely, management must deserve confidence . . . When confidence in management is undermined, work suffers and the war effort slackens . . ."

Province of Quebec—

Over 3.54% Interest Return

The Province of Quebec for the fiscal year ended March 31st, 1942 reported an "overall" surplus of $1,500,000.

The funded debt per capita of the Province is the lowest of any province in Canada, excepting Prince Edward Island.

New Issue—

Province of Quebec
3½% Sinking Fund Debentures
Due September 1st, 1955—1957
Price: 99.50 and interest, to yield over 3.54%

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Market Opinions

While the weight of market opinion remains on the constructive side, there continues to be a lack of any dynamic buying signal. The consensus appears to be that better things are in store for the markets, but that continued patience may be necessary.

Barron's, N.Y. (The Trader)—While clarification of tax uncertainties may have to await another two months or until Congress takes final action, the dividend cuts that have come in the wake of huge tax reserves still have little net effect on the stocks involved. Westinghouse Electric and du Pont are shining examples. Libby-Owens-Ford which has been on a $1 dividend basis all year as compared with total disbursements of $3.50 in 1941, is now approaching its high of the year. American Woollen preferred has made up almost all of the loss resulting from dividend and earnings disappointments. A market that refuses to go down on tangible adverse developments other than military obviously has within itself the potentialities of a rise.

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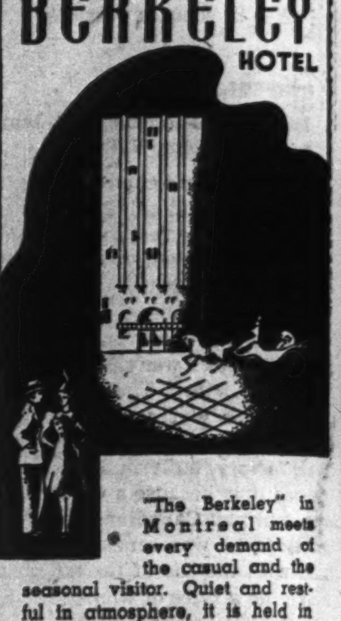
Financial World, N.Y. — Nothing has occurred to change the opinion that the lows for the market were seen last April, and that intelligently selected stocks will prove a better holding than cash during the remainder of this year and for an indeterminate length of time beyond.

• • •

Barron's, N.Y. (The Dow Theorist)—The industrial average at its highest level of the week, and after eight consecutive days of advancing prices, was still more than a point below its July 16 peak of 108.91. If it does succeed now in bettering that figure, a continuation of the secondary uptrend which began at the end of April will be indicated. A decline below its July 16 peak of 108.91. If it does succeed now in bettering that figure, a continuation of the secondary uptrend which began at the end of April will be indicated. A decline below the August lows in both averages, however, would suggest strongly that the intermediate trend had turned down and that a test of the April-June lows (92.92 and 23.31) was in the making.

in MONTREAL... the BERKELEY HOTEL



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Berkeley

The Shareholder

Distillery shares enjoy considerable speculative investment interest in Canadian markets. Goodbody & Co., New York, currently commenting on such issues states that Distillers Corp.-Seagrams has interesting long-term possibilities but that the near-term outlook is somewhat uncertain. This investment dealer says Hiram Walker-Gooderham & Worts shares are preferable for investors interested in a high rate of return coupled with reasonable security. It is pointed out that the distilling industry is regarded as an inflation hedge due to its unusually large inventories.

• • •

Canadian investments still attract attention, in the view of C. H. Burgess & Co., Toronto, which firm states it has recently heard of orders received from Switzerland for Canadian stocks. In a letter to clients they point out that bonds and stocks are not yet rationed although good stocks are hard to get in any quantity. One of the main considerations in keeping stocks so low is fear of taxation and restrictions, it is stated, with investors not sure how far the taxation will go or what restrictions or limitations will be placed on the activities of various large concerns. C. H. Burgess & Co. lists a group of nine Canadian stocks on which yields range from 7.69% to 12.14% on current dividends and prices.

Their list includes the following: Massey-Harris preferred; Canadian Bakeries, preferred; Canadian Breweries preferred; Canadian Wirebound Boxes; Distillers Corp.-Seagrams; Simpsons Ltd. preferred; Hiram Walker common; Noranda Mines; Canada Steamships preferred.

• • •

International Petroleum shareholders may have a direct interest in the recent entry of Brazil into the war. While enemy submarines are known to have been operating in South American waters it, of course, cannot be disclosed what losses there have been, or what effect they might have had on International Pete's operations. However, it seems assured that with Brazil now definitely in the fight there will be a tightening up in anti-sub patrols in waters off South America which should serve to lessen Nazi depredations on tankers and other shipping.

The Bondholder

Bond trading is generally rather quiet, due partially to the holiday season but also to a cooling off toward anything but firm commitments in anticipation of the next Victory Loan. Dealers do not want to have their shelves loaded with any sticky deals while that financing is going on. Indications are that the Third Victory Loan machinery will be put into high gear in the latter half of September.

In connection with Victory Loan financing, Wilfrid C. Krug, of Windsor, has an interesting suggestion. The 3% Second Victory Loan bonds that Canadians bought mature in 1954, are callable on and after 1952. Mr. Krug suggested in all future bond issues a clause should be inserted giving the government the option to redeem the bonds at short notice. Thus, when the war ends and should signs of a depression appear, the government could redeem the bonds and citizens would be able to use the dollars for creating increased employment and stimulating business.

• • •

King Edward Hotel 7% bonds at around 26 to 28 are up about a point. No really vital change has taken place in this situation but steady progress is being made in the collection of outstanding accounts and payment of liabilities. Current indications are that everything will be straightened out in time to allow distribution on the bonds some time in October. Those in close touch with the situation figure that something around 30 points a bond is likely to be paid.

• • •

International Hydro-Electric debentures continue to turn over quietly around the 43 mark but remain a subject for much discussion in bond trading circles. This column has already noted the potential break-up value of Hydro's holdings of Gatineau Power and New England Power. More recent market interest is turning to the value of Hudson River Power Corp. and System Properties Inc., which International Hydro wholly owns. These two assets are not weighable on the open market scale but significant is the fact that for Hydro they currently yield an annual income of around $700,000, which is equal to what Hydro gets in dividends from its important Gatineau holdings.

Significant Investors' Index Numbers

No. of Securities	Mach. and equip. 8	Pulp and paper 7	Milling 3	Oils 4	Textiles and clothing 10	Food and allied prod. 12	Beverages 7	Bldg. mater. 15	Power and traction 15	Banks 8	Total utilities 19	Total co's. 95
(Base 1935-39—100)												
1929-41:*												
High	345.7	564.5	322.3	212.5	168.2	123.2	163.1	202.1	297.5	160.9	329.3	180.5
Low	68.5	59.8	63.4	46.5	76.0	76.9	67.0	71.2	60.3	83.6	65.2	63.9
1942: Monthly Figures:												
Jan.	74.3	71.9	74.5	45.9	112.8	88.7	99.2	75.1	64.4	91.1	70.4	66.8
Feb.	73.4	69.3	69.7	43.6	108.7	85.5	96.3	73.9	62.1	91.1	67.7	64.7
Mar.	69.7	66.1	70.9	41.2	104.3	75.8	92.8	74.0	62.0	89.4	67.5	62.3
Apr.	70.6	63.2	69.6	41.4	102.4	74.2	93.1	73.9	60.2	88.4	66.3	61.1
May	74.7	61.1	70.5	43.2	104.3	73.5	94.2	75.7	60.7	87.4	66.4	62.0
June	76.2	61.1	69.6	44.5	106.6	73.9	93.6	76.8	64.3	87.7	68.1	62.8
July	76.6	58.9	65.3	46.6	100.4	75.9	95.5	75.3	65.2	81.7	67.8	62.4
1942: Weekly Figures:												
Aug. 6	75.4	57.5	61.3	46.1	97.2	76.3	97.4	74.3	67.1	75.4	67.7	61.5
Aug. 13	76.1	58.0	61.6	46.7	96.0	75.3	98.5	74.1	67.7	72.4	68.2	61.3
Aug. 20	77.0	55.4	61.6	47.5	98.2	75.0	101.3	72.7	66.8	71.3	68.1	61.6

*High and low for years from 1929 to 1941 inclusive are based on weekly figures issued by Dominion Bureau of Statistics. For 1929 to 1938 inclusive the base is 1926—100; for 1939 and subsequent years the base is 1935-39—100.

Toronto Stock Exchange Index

	20 Indust.	20 Golds	10 B.M.	15 W.O.
Aug. 25	85.06	59.64	59.00	15.60
Aug. 24	84.78	59.46	58.86	15.58
Aug. 22	85.05	59.43	58.82	15.54
Aug. 21	84.82	59.56	58.92	15.65
Aug. 20	84.73	59.63	58.81	15.66
Aug. 19	84.82	60.15	59.22	15.66
Month ago	84.30	62.22	59.83	15.88
Year ago	93.62	100.08	69.37	19.67
High 1942	93.50	83.71	71.01	18.86
Low 1942	79.85	59.43	58.81	15.54

Montreal Stock Exchange Averages

	10 Util.	20 Ind.	30 Cmd.	10 Pprs.	15 Golds
Aug. 25	43.3	54.4	50.7	49.10	38.60
Aug. 24	43.0	53.9	50.3	49.52	38.65
Aug. 22	43.1	54.0	50.4	49.30	38.49
Aug. 21	43.0	54.1	50.4	49.68	38.49
Aug. 20	42.8	54.0	50.3	49.47	38.32
Aug. 19	43.0	54.0	50.3	49.26	38.32
Month ago	43.7	54.7	51.0	52.66	39.20
Year ago	44.5	60.8	55.4	73.69	71.02
High 1942	44.8	60.5	54.7	77.18	54.82
Low 1942	39.6	53.6	50.0	49.10	36.94

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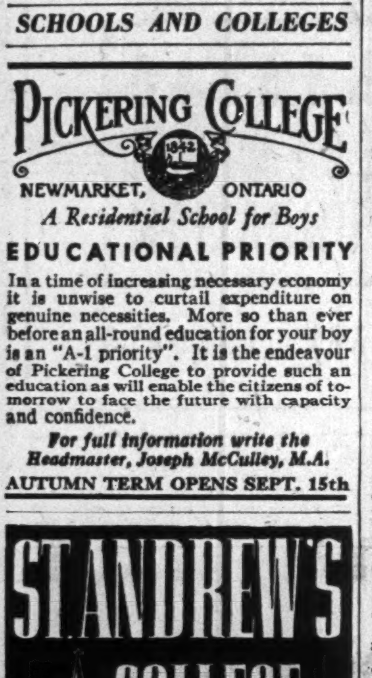

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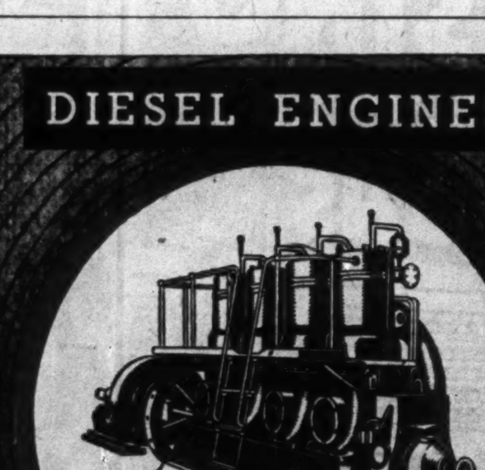

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Victory Bonds were offered with the implied understanding that they should be held "for the duration". No new savings or money is provided to help carry on the war, by selling Bonds to a third party. The action is little short of sabotage. It is a betrayal of the men and women on active service and a negation of the whole purpose of Canada's War Financing.

Please take whatever steps you consider practical to persuade your employees to hold their Victory Bonds and War Savings Certificates; by personal appeal or by a message in pay envelopes. It is also suggested that you clip out and post this announcement on your Employees' Bulletin Board.

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Bond Redemptions

Bond Issues:	Rate	Year	Due	Price
Paton Mfg. ...	‡4½%	1956	Sept. 1	103
Gt. W. Sad'y	6%	1948	Sept. 1	105
Northern Tel. ..	4%	ser.	Sept. 1	101½
Int. Paper, "A"	*6%	1955	Sept. 1	105
Pac. Petrol.	6%	1945	Sept. 1	100½
Prov. L. H. & Pr.	†5%	1946	Sept. 1	105
Wood, A. & J. ..	■6%	1944	Oct. 1	103

‡$12,500. *$481,000. †$672,000. ■$29,500.

Bond Tenders

12 noon, Aug. 27, Canada Treasury Bills —$45,000,000, dated Aug. 28, 1942, payable Nov. 27, 1942.

Classified Advertisements

Classified ads. cost 4c. per word and figure for each insertion. Minimum ad. 12 words. Add six words when box number is required. When replies are to be mailed to advertiser, add 10c. Classified ads. payable in advance. Contract rates on application.

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The Ontario Municipal Board

NOTICE IS HEREBY GIVEN that the Board of Trustees for the Roman Catholic Separate Schools for the City of Ottawa has become subject to the provisions of Part III of "The Department of Municipal Affairs Act" (R. S. O. 1937, C. 59) by an Order of The Ontario Municipal Board bearing date Eleventh day of August, A.D., 1942, and from and after the first publication of this Notice in the "Ontario Gazette," all actions or proceedings against the said Board of Trustees for the Roman Catholic Separate Schools for the City of Ottawa are stayed, and thereafter no action or other proceeding against the said Board of Trustees shall be commenced or continued, nor shall a levy be made under a Writ of Execution against it without leave of The Ontario Municipal Board.

Dated this 14th day of August, A. D., 1942.

M. B. SANDERSON,
Acting Secretary of the Ontario Municipal Board.

How Salvage Cuts C. N. R. Costs

Reclamation of Material Saves Millions Annually

By ROBERT C. STARK

This year the Canadian National Railways system will spend $22.3 millions for capital purposes and retiring maturing capital obligations. But this is only part of the story. A great deal more could have been spent had it not been for the far reaching salvaging organization of the national system.

Breakdown of this year's expenditures is as follows:

Genl. additions & betterments	$16,210,000
New equipment purchases	3,208,000
Acquisition of securities	3,403,000
Retirement of maturing obligations, including sinking fund and equipment trust principal payments	9,795,000
Less: Avail. from equip. retirements	2,056,000
Res. for depr. & debt disct. amort.	8,200,000
Total	$22,360,000

The $16.2 millions headed "general additions and betterments" covers a wide range of miscellaneous expenditures, but does not indicate that the C. N. R. is adding to its mileage. The $16.2 millions is being spread around as follows:

General Additions and Betterments

Atlantic region	$ 1,605,887
Central region	4,716,179
Western region	2,509,062
Grand Trunk Western Ry.	812,924
Cent. Vermont Ry.	110,867
Hotels	83,652
Montreal terminals dev.	1,900,000
P. E. I. car ferry & terminals	160,500
Subsidiary companies	75,410
General	4,235,519
Total	$16,210,000

New equipment purchases amounting to $3.2 millions include 200 box cars for Grand Trunk Western Railroad and 81 secondhand all-steel passenger cars for the C. N. R., these latter to be converted into colonist cars and first-class non-air-conditioned coaches.

Of the $3.4 millions for acquisition of securities, $100,000 is represented by the company's proportion of capital expenditures of the Toronto Terminals Railway; another $200,000 for capital expenditures of the Northern Alberta Railways, both of these items being joint with the C. P. R. Another $3.2 millions was required for redemption Feb. 16, 1942, of the 4% debenture stock of Edmonton, Dunvegan and B. C. Railway. A total of $138,000 is being advanced to the Chicago and Western Indiana Railroad. All these items total $3.6 millions from which there is deducted $250,000 coming from Detroit and Toledo Shore Line Railroad as reduction in ledger value of capital stock, by application of special dividends to be received during 1942.

Salvage Important

An important department concerned with keeping Canadian National costs down is that which handles salvage operations and, at the same time, keeps a watchful eye open for reducing any wasteful practices. During one year the reclamation of miscellaneous material and the sale of scrap and other material which could not again serve the purpose of the railway can mean a saving of somewhere in the neighborhood of $5 millions.

Most of the salvage activity is concentrated on steel rail and scrap material from equipment. Importance of this division is indicated by the fact that scrap sold to consumers and used in railway foundries during 1940 had a value of $3.8 millions.

When equipment is rolled into the railway shops for repair any damaged parts are carefully inspected and where possible restored to use. The stage of scrap is reached only after thorough inspection. The scrap itself is classified into 60 divisions of ferrous metals and 31 of non-ferrous metals. Rail which is battered at the ends is taken out and sent to certain centres for treatment. There the ends are sawn and the rail redrilled, which makes it available for sidings and lines of lesser traffic. Other material handled in a similar way in the shops represents an infinite variety, such as damaged bolts which may be cut and rethreaded, or tie plates. Brake shoes found on the right of way and other useful material is picked up by section hands and eventually reaches a shop.

Repair Linens

From the heavy metal items the salvage front extends right down to rags. Skilled seamstresses are steadily employed in prolonging the life of linen used in the sleeping and dining cars, their yearly turnover of material being counted in tens of thousands of pieces. When linen has outlived its usefulness it carries on in the form of dusters for use in passenger cars. When white coats used by dining car waiters are too far gone for needle work, they find their way to the stores to be sold at top value as rags.

To avoid train delays on account of hot boxes, all boxes on passenger cars are repacked once every six months and on freight cars every 15 months. The old packing is removed at the various repair points and shipped to a reclamation plant. The oil and waste are there separated and each of them put through a process of renovation by cleaning the oil of any water or dirt. The waste is also laundered and all loose ends and foreign matter removed. From this activity there is an annual reclamation of approximately $48,000 and better than $63,000 for waste.

Used cakes of soap from the wash rooms are gathered and sent to shops where the application of a steam jet liquifies the mass, making it usable for washing down the interior of passenger equipment. Annual saving here amounts to about 1,800 lb. of soap.

In the every day operation of a continent-wide railway system there is vast room for wasteful practices to enter. Illustrating that point is this partial list of what the C. N. R. purchasing department buys in a year: more than two tons of pins, two and a half million paper fasteners, one and three quarter million paper clips, five and a quarter million sheets of carbon paper, three and three quarter million sheets of paper for copies, 43,000 typewriter ribbons, nearly a million pencils, 28,000 stenographers' notebooks, 150 million copies of printed forms.

Many small items of equipment which in most offices are deemed insignificant achieve a startling importance when the cost is translated into rail traffic. To purchase a single lead pencil requires the hauling of one ton of freight for one mile. To pay for a single typewriter ribbon it is necessary to haul 26 tons of freight. Scratch pads are a much abused item of office equipment but to purchase one such pad needs three tons of freight. An ordinary broom has a value of 47 tons of freight.

As in most Canadian offices the railway has taken steps to eliminate waste in the use of its small equipment. Typewriter ribbons are being turned upside down to give them double life. Saving has been made by changing the container for carbon paper from a cardboard box to an envelope which contains 50 sheets instead of a hundred. The number of units increased 28% but there is a net reduction of 36% in the number of sheets used. Multi-address envelopes are used while the back of old correspondence comes in handy for memos and notes.

Another substantial saving has been made through standardization and simplification. There used to be 58 kinds of pen points. In Canadian National offices these have been reduced to little more than a dozen, without cramping the writer's style. The system once used as many as 9,912 printed forms. Now there are 6,838.

Int'l Hydro Cuts Deficit

From Our Own Correspondent

MONTREAL. — Consolidated income of International Hydro Electric System recorded an improvement for the three months ended June 30, 1942.

Net loss for the period totalled $23,551. This compares with a net loss of $189,585 for the like quarter of 1941.

Total revenue for the past quarter at $19.7 millions compared with $18.7 millions a year ago. For the 12 months ended June 30, 1942, total revenue of $80.4 millions compared with $73.4 millions for the preceding 12 months, while consolidated net loss of $693,855 contrasted with a consolidated net profit of $8,467.

Reporting on the period's developments, Irwin L. Moore, president, states that over 75% of the System's substantial increase in consolidated revenue for the second quarter was absorbed by increases in income taxes in the United States and Canada.

Due to the improvement in water conditions compared with a year ago, the additional output required to meet the increased demands for electric energy for industrial purposes was obtained principally from hydro-electric stations during this quarter. Despite the improvement in water conditions, higher cost of fuels, materials, labor and taxes more than offset the increases in revenue, so that consolidated operations continue to show a loss.

Selling Agencies WANTED

THE NORTH BRITISH RUBBER CO. LTD.
284 KING STREET WEST
TORONTO, ONTARIO

Manufacturers of the famous North British Golf Balls and golf equipment, also mechanical rubber goods, x-ray gloves, diving dresses, combs and rubber hose.

Due to the rubber shortage our sales are decreasing. We have a first class selling and clerical organization and 4000 feet of clean well lighted warehouse space in the Anderson-MacBeth building.

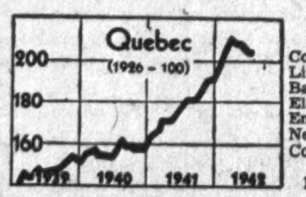
Manufacturers looking for active sales representation are invited to communicate with the above.

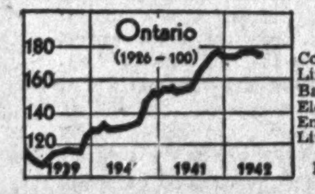
Business Moves Higher In Three of Five Areas

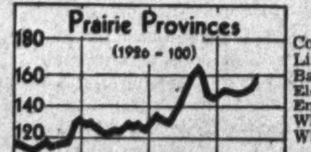
Continued improvement in business activity of the Maritimes and Prairie Provinces was recorded during July over the preceding month. British Columbia also moved higher, while Ontario and Quebec both showed a slight recession on the month.

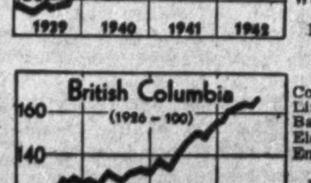
Favorable weather conditions in the Prairie Provinces led to a forecast of one of the greatest grain crops in history as business activity climbed sharply on the month. Output of electricity reached higher levels in each of the economic areas except the Maritimes. Employment recorded an advance in Quebec, Ontario and British Columbia over the high level of the preceding month while the same areas reported advances in bank debits. Insurance sales were greater in each of the five economic areas.

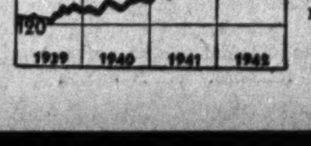
An important influence in further raising the Maritimes index was a gain in building contracts awarded from $2.4 millions to $6.3 millions.











Trend of Business in Economic Areas

	July 1942	% Change July 1941	June 1942
Maritimes:			
Construct. contra. . $	6,280,800	+40.8	2,403,000
Life ins. sales ... $000	3,380	+33.6	3,470
Bank debits . $000,000	85.4	+13.9	87.6
Elec. pwr. .. kw.h.000	77,000	—11.5	85,000
Employment*	170.8	+4.2	166.1
Index	190.8	+8.3	187.8
Quebec:			
Construct. contra. . $	7,307,300	—26.7	19,408,000
Life ins. sales ... $000	11,573	+35.3	10,426
Bank debits . $000,000	1,091	+20.3	976
Elec. pwr. .. kw.h.000	1,707,000	+21.5	1,749,000
Employment*	187.1	+15.6	182.8
Newsprint prod., tons	241,178	—17.8	242,762
Cotton consump. . lb.	16,542,042	—2.2	14,970,262
Index	205.5	+13.9	206.1
Ontario:			
Construct. contra. . $	13,145,700	+7.3	16,030,000
Life ins. sales ... $000	19,420	+36.7	19,972
Bank debits . $000,000	1,732	+21.5	1,889
Elec. pwr. . kw.h.000	791,000	+0.5	820,000
Employment*	181.1	+9.4	178.5
Livestock slaughter. .	140.4	—30.8	202.0
Index	177.8	+9.1	178.6
Prairie Provinces:			
Construct. contra. . $	4,020,300	+23.5	5,159,000
Life ins. sales ... $000	6,759	+48.8	6,270
Bank debits . $000,000	520	—16.4	586
Elec. pwr. . kw.h.000	184,000	+3.4	189,000
Employment*	139.4	+5.2	137.4
Wheat receipts .. bu.	24,730,000	—9.8	11,040,000
Wheat price**	81/1	+8.9	80/0
Index	160.4	.....	153.9
British Columbia:			
Construct. contra. . $	1,339,300	—3.5	3,756,000
Life ins. sales ... $000	3,127	+32.2	3,219
Bank debits . $000,000	276	+30.8	229
Elec. pwr. .. kw.h.000	207,000	+1.5	200,000
Employment*	167.9	+20.6	161.9
Index	169.6	+12.8	165.8

*1926—100. Employment statistics apply to preceding month.
**Cents and eighths of a cent per bushel.

"SYNTHETIC" RUBBER? Goodyear has the "know-how"—based on 15 years' experience

● We, at Goodyear, are fully aware that Canadians are anxious about the rubber situation. Not only are you apprehensive about future tires for yourselves but, like the rest of our people, you are asking, (1) *"Will our fighting services continue to be supplied with needed rubber products?"* and (2) *"Can 'synthetic' rubber be obtained in time and in sufficient quantities?"*

Our answer to your first question is . . . Yes! Everything the army, navy and air force need they are getting. Rubber materials of all kinds are flowing and will continue to flow to them in a steady stream.

Our answer to your second question is again . . . Yes! "Synthetic" rubber can and will be made in adequate quantities for all essential needs.

You might ask a third question, *"What does Goodyear know about 'synthetic' rubber?"* Well, more than fifteen years ago, when the whole world was at peace, we started work on an extensive research program. We knew that "synthetic" rubber could be derived from a wide variety of products, such as coal, grain alcohol, acetylene, petroleum, natural gas and other hydrocarbons and that the processes were many. In all we explored hundreds of different chemical compounds and from the date of our first patent, 1927, to now, we have been granted, or have applied for, sixty-five patents covering the manufacture of "synthetic" rubber.

Out of this work came success . . . Goodyear Chemigum. (Pronounced Kem'-ee-gum). This "synthetic" has a globular structure and physical properties very similar to natural rubber. By compounding, Chemigum can be endowed with qualities *definitely superior to natural rubber for many purposes.* Having achieved this much, Goodyear built the first complete plant on the continent for producing rubber of this type and began the manufacture of Chemigum products for various industrial uses.

There, briefly, is Goodyear's experience in "synthetic" rubber . . . a comprehensive experience in laboratory research, in practical testing and actual manufacture. Today, as an aid to United Nations' governments, all that experience, plus sixty-five important patents, have been pooled with the knowledge and resources of others so that a united effort can be made to achieve quantity production at the earliest possible date.

WHAT ABOUT "SYNTHETIC" TIRES?

The first Goodyear tires were made from Chemigum in 1938. *These tires actually outperformed, in most respects, tires made from natural rubber.* They were standard All-Weather tires and the tests given them were actual and arduous road tests on standard automobiles. Tires made from Chemigum were not made available to the general motoring public for the simple reason that cost, then, was too high. It was seen at that time that cost could be licked only by quantity production, but could be licked when, and if, the need arose. Today, we can say that not only does Goodyear know how to make "synthetic" rubber, not only does Goodyear know how to use that material in tires, but Goodyear is actively working for actual quantity production and can see the time, not too far distant, when "synthetic" tires will be produced at or near the costs of those made from natural rubber. Please do not misunderstand us . . . *there is no apparent prospect of "synthetic" rubber tires, or any other kind, being available for the duration, except tires for war and essential civilian uses.* War demands are too great for that . . . and ever-growing.

Then, the situation today is this: The big job has been done—because Goodyear and others were farsighted. That big job was finding and knowing how to use a brand-new material. If, when there was no need to do so, research had not been started, and had not been successful, today we would have been facing fifteen years of research instead of having it behind us.

We give you this information so that Canadians will know that Goodyear, the leader in the rubber industry, is wide awake, straining every resource and making every effort to ensure an adequate supply of "synthetic" rubber in this country.

GOODYEAR

ABOUT THE TIRES YOU HAVE TODAY!

Add thousands of miles to the life of your present tires through Goodyear's Tire Life Extension Plan. This full and complete method of tire and tube care is conserving miles for motorists everywhere in Canada. See your Goodyear Dealer today.

CHEMIGUM
N20

The Editorial Page . . .

Why Not More Showmanship?

"Wait till our soldiers see some action; wait till there are some casualties, then we won't have any trouble about getting war production, about strikes, about putting over war loans, about national morale."

For months many Canadians have been making statements like that.

This week, in Toronto, the Minister of Finance addressed two mass meetings, one for representatives of industrial workers, the other for representatives of white collar workers. The idea was to explain wartime taxation and emphasize the vital necessity of putting over forthcoming Victory Loans.

Mr. Ilsley spoke simply, earnestly, with the zeal and sincerity of a missionary. That is the kind of speech he makes. But Mr. Ilsley is not the man to arouse emotions, and no one else on the programme succeeded in doing so.

The scheme was excellent. What was tragically lacking was showmanship, knowledge of how to "put things over"; of how to fire these extremely valuable audiences with zeal commensurate with the gravity of the national emergency.

Of several speakers on the programme not a single one referred to the epic feat of the Canadians at Dieppe; to the widespread acclaim for their valor or fighting skill; to the lives which our Army has forfeited in the cause of the United Nations. Each speaker failed to emphasize that Canada's war effort had entered a new and significant phase; that here was an event gripping the souls and imaginations of every Canadian.

Ottawa Should State its Creed

In a few months, Canadians will be asked to loan every dollar they can possibly dig up to the Dominion Government. Approximately $2 billions will have to be borrowed to finance the war. Coming on top of taxes of unparalleled severity, the raising of this extra money is not going to be easy.

The government might well ponder the excellent suggestion of Howard P. Robinson of St. John, in last week's issue of The Financial Post. First, states this well-known Maritime executive, the government should set an example in the drastic economy it demands of the average citizen. Secondly, it should end widespread general uneasiness by a definite announcement that the present trend toward totalitarianism is for the duration of the war only.

It is not going to be a simple matter to raise the necessary war loans and taxes this year. But it will be infinitely easier if the average man is assured that there will be no waste in the money he contributes and that we are fighting to erase totalitarianism, not to bring it to Canada.

War Production Pitfalls

Two pitfalls continue to face those authorities charged with the war production of the United Nations. On the one hand is the danger of tying up too much present capacity in long range production which may never be a factor in the war. On the other is the temptation to brush aside all new developments, on the grounds that they will be too late. A sane balance must be maintained between these two extremes.

Two years ago after Dunkirk and Norway, our major weakness in the matter of war equipment was "too little and too late." Now with the arsenals of the United States and Canada added to the greatly boosted output of Great Britain, there should no longer be any worry about "too little" but there still remains the risk of both "too late" and "not good enough." It certainly was not lack of equipment that was responsible for the sudden turn of fortunes in Libya but inferior quality of the equipment supplied to our forces.

A year previous the tanks, guns and planes that we used in that disastrous battle would have been sufficient to overwhelm the enemy against us. By this spring, however, many of our weapons had become obsolete.

The Financial Post's Platform For War

1. *Effective mobilization of all resources, materials, productive capacity and manpower, without reservation, for an all-out war effort.*
2. *A national cabinet, representative of all loyal groups, and consisting of Canada's ablest brains.*
3. *An inner war cabinet, free from departmental duties, to plan the nation's war effort and to see that the plans are carried out.*
4. *A non-political industrial executive to organize and direct procurement of war supply.*
5. *Pay-as-we-go policy, to the very limit consistent with an all-out war effort, to avert inflation.*
6. *Elimination of wasteful spending by public bodies or private indibiduals.*
7. *A national programme to deal with postwar employment and relief problems.*

The United Nations cannot afford a repetition of Libya. The next reverse might easily prove fatal. At frequent intervals Donald Nelson, U. S. czar of war production, is said to ask himself "What can we do today which in a year's time we should be sorry not to have done?"

This is a question which those charged with weapon design in Canada and Great Britain might also ask themselves. In the past we have concentrated too much on building weapons equal to those the Germans have used against us, ignoring the fact that these are current models in full production and already much more powerful ones are being designed to replace them. By the time we have our factories ready to turn out in volume, tanks and guns of equal quality, Nazi production lines are turning out something still better. If we are to beat Hitler without an appalling cost in blood and treasure, we must build weapons not just equal to his but more and better ones.

Postwar Reserves Vital

Surpluses in wartime should go into building up strong reserves for emergencies during the postwar readjustment period, K. A. Christie, President of the Ontario Municipal Electric Association, told a Port Arthur audience last week. Mr. Christie was answering the criticism that the Ontario Hydro Electric Commission should distribute its war expanded earnings in general rate reductions. Said Mr. Christie:

> "In peacetime surpluses may be used for stabilizing rates or for giving reductions, but in wartime, with war loads, the question of rate reductions must be carefully weighed. If we err at all, let us err in the direction of building up strong reserves, so that when peace comes we will be in a position to give favorable rates and services to our consumers."

This is fundamental common sense. While Mr. Christie was referring specifically to the publicly-owned Ontario "Hydro," his advice applies even more strongly to privately owned industry.

Unlike government-owned organizations, which can and have dipped into the public treasury to meet deficits and new capital expenditures, the privately owned companies must depend solely on two sources for their capital, funds supplied by shareholders and undistributed earnings.

If our industries are to continue as a major economic factor after the war, to continue to provide and create jobs for our citizens, then strong financial reserves will be essential to weather the difficult post-war readjustment period.

It is feared that this point did not receive the importance it deserves when the Dominion Government framed its drastic wartime taxation policy.

Wartime Prospecting

The Dominion government has been sharply criticized on its attitude toward mineral prospecting in wartime. In some quarters it has been suggested that the authorities should adopt a more aggressive, clear cut policy on the problem of uncovering new sources of strategic metals. Ottawa is said to be so wrapped up in the question of civilian supply that prospecting for new finds has been neglected. There is something to be said on both sides of this controversy.

It is no secret that the United Nations are in serious need of certain metals either cut off entirely or menaced by recent Axis conquests. If Canada could provide additional and quick sources of these then almost any encouragement toward the necessary prospecting would be justified. On the other hand, neither Canada nor any other of our partners in the present struggle can afford to waste time, money and labor in any wild goose chases. To be of effective use we must get any new materials quickly.

Broadly speaking we are forced to fight with what we have on hand or can locate and utilize in a matter of months. This means that in some sections and for certain metals some wartime prospecting is not only justified but is essential while in other areas and for other lines it is not. The problem is not one that can be solved by general rules or snap judgments but calls for a realistic approach and thorough analysis.

Let's Have Right Name

Commenting on Henry J. Kaiser's search for raw materials with which to build his 5,000 cargo planes, the current issue of Time magazine notes that the Kaiser sponsorship of the Hansgirg process for making magnesium "proved a flop," but that miracle-worker Kaiser is now starting production on a new magnesium plant "using the better, safer ferrosilicon process."

What it should have added, to keep the record both straight and complete, is that this "better, safer ferrosilicon process" was developed and perfected in Canada by Dr. Lloyd M. Pidgeon, youthful, brilliant Canadian chemist.

The Pidgeon process is being used by five big American organizations now rushing to completion plants which will produce magnesium at the rate of 50,000 tons a year. One of these plants is the Ford company magnesium development at River Rouge with a rated capacity of 60 tons a day.

The first Canadian plant using the Pidgeon process turned out its first pound of magnesium last week and will be in full production within the next two months. It has a rated capacity of 10 tons a day and will probably better this by as much as 50%. The plant is being operated by Dominion Magnesium Co. and is located at Haley's Corners a few miles from Renfrew, Ontario.

Let this be known as the Pidgeon process; at very least, the Canadian process.

Break Down the Tax Returns

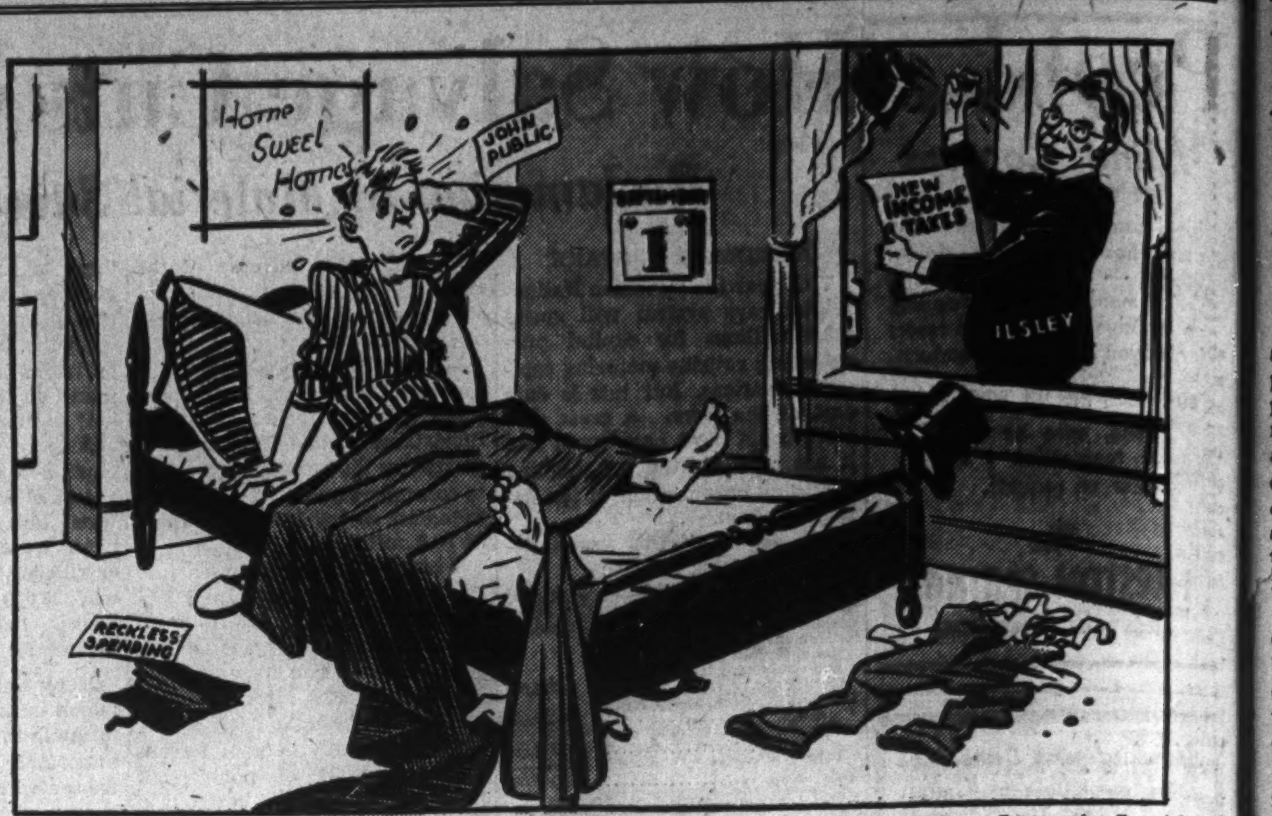
Relations between management and shareholders have improved, due in part to new company laws which make it obligatory to supply shareholders with specific information as to the manner in which their property is being operated. But even more information could be given the shareholder, especially about taxation.

Before the war the amount which a corporation paid in taxes was important, but not nearly so important as now. Today, taxes are the biggest item of "costs" in the profit and loss account of a corporation. Business now pays more in taxes than it has left as net profits.

The shareholder has a vital interest in the amount of taxes which his company is paying. He is also interested in knowing to which government payments are made. The present practice of lumping tax payments under "Tax Provision" or "Income and Excess Profits Taxes," leaves too much to the imagination.

More detailed information should be supplied; not only to fill a gap which now exists in the information given to shareholders in annual reports, but also in the interest of the corporation's public relations.

It is good business for a company to let the public know just how much it contributes to each taxing body and the basis upon which the tax is paid. The utility companies have gone part way in giving such information, but all companies should make a complete disclosure of their tax bill. It would enable the public and shareholders to have a better idea of the contribution of business to war and the national economy.



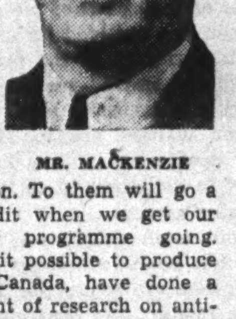
Cartoon by Grassick.

A RUDE AWAKENING

Post-Scripts . . . .

McNaughton's Successor

In a big stone building at Ottawa, behind the closed doors of laboratories never seen by the public, some of our ablest scientists are working night and day to concoct bad medicine for Hitler.



MR. MACKENZIE

They wear no uniforms, and may not even speak of what they do, but, as surely as the soldiers who will eventually storm Europe, they are contributing to ultimate victory. One of them discovered a cheap and efficient way to recover magnesium—magnesium for war production. To them will go a share of the credit when we get our synthetic rubber programme going. They have made it possible to produce optical glass in Canada, have done a tremendous amount of research on anti-aircraft weapons, have been active in other fields which cannot be mentioned. Their experiments are reflected in the operations of some of our most important war plants and in many of the developments described in the monthly report of war production in this edition of The Financial Post.

At the head of this army of scientists is Chalmers Jack Mackenzie, a brisk, bright-eyed man who is one of Canada's outstanding engineers. He became acting president of the National Research Council when Lieut. General A. G. L. McNaughton, president, took command of the First Division. On leave of absence from the University of Saskatchewan, Mackenzie has filled his wartime post in a way that has brought him tribute from research men not only of his own country, but of the United States and Great Britain.

Apart from supervising the work done by his own staff, he has kept tabs on what has been done in other laboratories, offering encouragement and suggestions. His suggestions are always practical. His encouragement has been warm enough to lead on to successful conclusions several experiments that seemed to have bumped headfirst into a solid stone wall.

Dapper, erudite, fond of literature, he might have made a great diplomat had he not preferred engineering. That is evident from the tact with which he handles scientists, who are likely to be even more temperamental than musicians, and whose nerves are often frayed by long, intense studies.

Dean Mackenzie—as he is usually called—was born in 1888 in a big comfortable house at St. Stephen, N.B., a town which lies on the St. Croix River, just across from Calais, Me. He is thus, by birth, nearly as much an American as a Canadian, for nowhere along the international boundary line do the people of the two countries live closer together. During the war of 1812, the two towns decided to ignore the scrap. The people of St. Stephen, supplied with gunpowder by the British government, loaned it to the people of Calais to celebrate July 4. Calais' water supply is piped across from St. Stephen, Calais people have their babies in the St. Stephen Hospital, fire departments of both towns answer calls on both sides of the border, and the two towns have one Rotary club, one golf club, one electric plant.

After graduating from Dalhousie University at Halifax, alma mater of three present cabinet ministers, Ilsley, Ralston and Macdonald, Mackenzie went West to practise engineering in Saskatchewan. In 1914, he enrolled at Harvard for a two-year postgraduate course, which he finished in one year. He enlisted in the Canadian army after that, serving until the end of the war.

Then he went West again, to take charge of the engineering school at the University of Saskatchewan. He made this one of the finest schools of its kind in Canada. In 1941 his fellow engineers elected him president of the Engineering Institute of Canada. He was a member of the National Research Council for four years before being chosen as acting president. Among other things, he heads a committee administering a million-dollar fund for scientific and technical research on war projects.

"Research," he once said, "provides the capital for industrial progress, and any country which is not constantly adding to that capital by new inventions and developments is living on its reserves."

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Housekeeper for Half a Million

The immense job of provisioning Canada's army falls on the broad shoulders of Major-General J. V. Young. A short time ago he succeeded Victor Sifton as Master-General of Ordnance. He is in charge of all supplies and storage, responsible for repairs and maintenance for the army. Unless ordnance is functioning smoothly, equipment and supplies are certain to be lacking in critical moments, training may be hampered for months and fighting ability of the whole army seriously lessened.

GEN. YOUNG

Gen. Young is 50 years of age. He was born in Hamilton, Ont., and educated at Upper Canada College, Royal Military College and the Massachusetts Institute of Technology where he specialized in mechanical engineering. In the last war he served with the 11th battery, Canadian Field Artillery, ending the war as a lieutenant. Two of his five children are now serving with the Canadian army overseas.

Gen. Young first joined the ordnance department in Jan., 1941, and was promoted to the position of deputy M.G.O. about midsummer last year. Part of his duties as M.G.O. is to act as chairman of the Army Technical Development Board, the group charged with developing the specialized weapons and equipment which the army wants. This board, formed as the result of a suggestion by Lieut.-Gen. McNaughton at the time of his last visit to Canada, finds out from the army what is needed. It then goes about the job of supplying these needs which may range from a new type of gun to a better design of personal equipment for the soldier. In supplying these needs, ordnance makes free use of research and development facilities wherever they exist in Canada but does not ordinarily do the research itself. Extensive use is made of the facilities of the National Research Council, of various Canadian universities and of the research departments of industry in some cases. All this work centres in the office of the M.G.O.

In civilian life, Gen. Young is vice-president and treasurer of Hamilton Cotton Co. This is an old family business, established by Gen. Young's father about 1880. It was incorporated on his father's death a number of years ago and in the late 1920's public financing was carried out. Another brother, A. V. Young, is president and general manager of the company.

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Heads Accountants

A typical member of the profession, hard-working and serious, has been elected president of the Dominion Association of Chartered Accountants. He is Kris A. Mapp, F.C.A., past-president of Institute of Chartered Accountants of Ontario. At the 40th annual meeting of the Dominion body in Calgary last week he was elected head of the organization.

MR. MAPP

Mr. Mapp was born in India where his parents were missionaries. When quite young he came to Canada and in the first Great War he served with the Royal Air Force. His business life has centred around Toronto. He is a member of the Board of Trade for that city and for several years was chairman of the board's taxation committee.

Mr. Mapp has always been an active supporter of the Chartered Accountants Association. He was first chairman of the committee on education and examination which was instrumental in bringing about a uniform standard of education for chartered accountants throughout Canada. In 1941, as vice-president for the Dominion association, he was appointed chairman of the war purposes committee. His principal recreation is golf.

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Sayings of the Week

"Nobody ever fought his best merely to preserve the status quo."—*James B. Reston in his book "Prelude to Victory."*

• • •

"There is a ceiling on prices; there is no ceiling on effort. We are not going to stop short of our utmost."—*Brooke Claxton, M.P.*

• • •

"The women are learning three times as fast as any men I have ever trained." —*Captain Max Barron, U. S. Army Officer commenting on the W. A. A. C.*

• • •

"We shall emerge from this war with new skills, with new strength, with a new unity—may I say, in all reverence, with a new national soul." — *Donald Nelson.*

• • •

"We are setting ourselves to build a world where little children everywhere can sing themselves to sleep."—*Dr. Paul Calvin Payne, General Sec'y, Presbyterian Board of Christian Education.*

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"The Chinese write the word crisis with two characters, one of which means 'danger' and the other 'opportunity.' That's worth remembering."—*Milo Perkins, executive director, Board of Economic Warfare, U. S.*

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"The single party is the very essence of totalitarianism. The closer we get to a single party, the nearer we are to the total state. We have a substantial installment of it in Canada today."—*J. M. Macdonnell, president, National Trust Co.*

Other People's Views . . . . .

The Canadian Editorial of the Week

That Odious Wheat Agreement

The Canadian Countryman

According to the latest news letter published by the Searle Grain Company of Winnipeg an agreement has been reached between the United States, Canada, Argentina and Australia, the four largest wheat exporting countries, and Great Britain, the largest wheat buying nation of the world, for the setting up of an International Committee to control the world production, export and distribution of wheat, during the war, during the so-called reconstruction period immediately after the war, and during the postwar years after that.

To all sane-thinking people who perceive the danger of our losing after the war the very things we are fighting the war to retain and secure—that is, briefly, our liberty and freedom, plus a fair standard of living for all—this agreement is odious and abominable. It is the easy way to solve the wheat problem, but it is not sound. It is not in accord with true democratic principles and it is another step toward scarcity and a lower standard of living.

There can be no objection to control and regimentation during war. That is what people want and expect, and it is obvious that these things must apply to wheat as to other things. During the reconstruction period after the war, when there will be both political and economic chaos in Europe and Asia, it will be necessary to deal with the marketing and distribution of wheat by methods that would not be desirable under normal conditions. But that is no excuse for continuing control, regimentation and dictatorship when peace is finally established, and that is what is proposed in the agreement.

The agreement is contrary to the spirit of the Atlantic Charter, signed on August 12, 1941, by President Roosevelt and Mr. Churchill. Here is clause four of this document:

> "They will endeavor, with due respect for their existing obligations, to further the enjoyment by all States, great or small, victor or vanquished, of access, on equal terms, to the trade and to the raw materials of the world which are needed for their economic prosperity."

The wheat agreement handicaps trade by quotas and production control and these things are far worse and more objectionable than tariffs. It is one more step toward scarcity economics.

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As Others See Us . . .

Should Parliament Adjourn

Ft. William Times Journal

In The Financial Post there is a symposium of views from representative Canadians on the question: "Should parliament adjourn for six months as planned or sit more often in this emergency?" It is obvious that many Canadians feel that too much time is wasted in parliament in lengthy speeches in connection with matters that, however, important they might be in normal times, are now relatively insignificant.

Judging from the endless and to a large extent futile discussions of the recent session such a condition seems impossible of realization. As things are perhaps the cabinet-in-council can deal more effectively with matters of moment while the House is in recess.

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Where the Money Goes

The Vancouver Sun

Members of Parliament spent a good deal of time recently urging economy in general while often demandng more expenditures in particular. Again and again Mr. Ilsley demanded that they show him where he could cut down his ordinary running expenses and thus leave more money over for the war, but he got no answer, except Mr. Hanson's desperate proposal to fire some of the page boys in the House of Commons.

But The Financial Post of Toronto was not content to leave the question there. Where the politicians failed to dig into our expenditures, The Post has been conducting extensive excavations, and with interesting results. They are being published weekly under the pointed headline, "It's Your Money."

The items of extravagance revealed there are not large in themselves in a total budget of about four billion dollars, but together they should add up to formidable sums.

We trust The Financial Post will continue its investigations where the Opposition in Parliament failed. There is no chance of decreasing our total expenditures, for war expenses continue to increase, but at least we can insist that every possible dollar shall go into the war, not into needless luxuries.

• • •

Manpower Confusion

London Free Press

The Financial Post in emphasizing the need of centralization of control of the manpower of Canada points out that no less than six departments of the government are competing for "our dwindling manpower." In addition to the Labor Department, there are the three Defense Departments, the Department of Munitions and Supplies, and the War Services Department.

It is no wonder that there is confusion and overlapping in the manpower situation in Canada. The government has done many things well; the Empire Training Scheme has been a great achievement; Canada's war production is something of which we can be proud. But the manpower problem has never been faced since the first, largely due to the determination of the government to have no conscription. How many millions of dollars it has cost Canada because of this refusal to establish a plan of selective service for the army and for production it is hard to say, but it would be startling to say the least. Now that a crisis is being faced the government, according to Ottawa dispatches, is at last proposing to take action. The primary thing to do is to centralize the National Selective Service in one department and the next thing is to give the director lots of authority.

The Mail-box

The Right Spirit

Editor, The Financial Post:

Last week's news despatches report that Hon. Gerald Lascelles, nephew of the King, has been working long hours in a British munitions factory since last April under an assumed name, until he is old enough to enter the army. This is of special interest in connection with your recent questionnaire, "Should Canadian universities be closed at the present time."

It appears to me that this total war will be won by the lads who have the outlook and spirit of Gerald Lascelles who is working at munitions pending the time when he will be eighteen and can get into the Army.

It is among people of this calibre that we should look for our leaders after the war and not amongst those who continue their education for purely selfish reasons while their contemporaries are in the fighting forces or on other war work. I think there have been too many people in high positions, since the last war, who were able by one stratagem and another to avoid active service.

E. JAMES BENNETT.

Toronto.

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Wasted Manpower

Editor, The Financial Post:

Your recent question of the week is based on the premise "In view of our manpower crisis."

Is the manpower crisis real or is it merely artificial and due solely to ineffective and even unorganized distribution?

If you put some of your specialists to work you would find a large army of men physically fit for the armed forces or arms and munitions plants or for other essential industry, engaged in operating small land holdings, incorrectly designated in census returns as farms—but which are actually the poorest and most meagre kind of subsistence units. Practically all production is consumed by the family with no appreciable surplus for sale anywhere.

In many thousands of cases public assistance is required to keep such families living at all. While direct relief is not uncommon, in many more cases the extra assistance is provided through municipal and government road work, local charity and labor.

All across Canada from the Maritimes to British Columbia you find these marginal farm holdings where a few scrub cows are kept, and where the few acres under cultivation produce a few potatoes and vegetables, and a little grain for home use and where there is no surplus production beyond family needs, of any consequence.

In many cases living and social conditions are deplorable and constitute a real festering sore in our body politic.

Any careful review of this situation will reveal that in these areas there are at least 300,000 to 350,000 men from 18 to 45 years of age who are making no real contribution to National Welfare at this time and who could and should be used in some of the many fields where manpower is urgently needed.

John Barnett.

Toronto.

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Stop Me If . . .

An audience in occupied Denmark was viewing a Nazi newsreel. Upon the appearance of Hitler getting into a plane, a voice rang out from the darkened house, "Remember me to Hess!"

Instantly the lights went up, and the Gestapo searched for the guilty one. Failing, they ordered the show closed, told the people to get their money back at the door. Silently the audience filed out, not one stopping at the box-office for his refund.

"Why our money back?" they told the gasping Gestapos. "We enjoyed the show!"

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Problems Beset Farm Produce Ceiling

Beef, Pork and Lamb Scarce — Canadians Will Eat More Fish and Poultry

By B. T. HUSTON
Editor, The Canadian Grocer

Efforts of the Wartime Prices and Trade Board to control the prices of produce have been complicated not only by the narrow margins on which retailers operate, but by the seasonal character of farm products. A further difficulty has been that ceilings which apply to the wholesalers and retailers do not apply to the farmers.

Fresh meats are a case in point. Ceilings on them — especially on beef — have had a checkered career ever since last Dec. 1 when the base period prices became the order of the day.

Fresh fruits and vegetables and fresh fish were quickly removed from ceiling after Dec. 1 because of their seasonal nature, and the consequent rapid price fluctuations based on supply and demand. There were many in the food field who were certain fresh meats would receive similar treatment, but the W.P.T.B. had no such thought in mind. As a result it has had many headaches over shortages of supplies for the Canadian people, as well as over trying to meet the viewpoints of the producer, the packer, the retailer, the consumer, and even members of the cabinet and of parliament. Differences of opinion on export trade between the federal Department of Agriculture and the board were quite apparent. Finally Wartime Food Corp. Ltd. (a government-owned company) had to buy up beef destined for the export market where higher prices were obtainable.

Beef Shortages

Beef shortages, due to heavy shipments across the border and a strong demand from the Department of Munitions and Supply, have adversely affected sales and profits over the past seven or eight months, not only of packing companies, but practically all retailers. At times many of the latter were entirely out of stock and were considering closing their stores for a time.

During the winter and early spring months, wholesale and retail meat dealers were not only up against this dearth of supply but were supposed to absorb the "squeeze" caused by producers' prices of stall-fed cattle being above their base period prices on grass fed.

One W.P.T.B. order said that each wholesaler (packer) had to sell each individual buyer at the same price as he sold him between Sept. 15 and Oct. 11 last year without any corresponding arrangement as far as cattle producers were concerned. This meant different prices to different retailers and it seemed only natural that dealers who had paid the highest prices in that period —as well as the Department of Munitions and Supply which was paying more on contract at the time — would be favored with supplies.

A "black market" in beef began to develop following this ruling. The board evidently took cognizance, for shortly it announced the organization of the new corporation. About the same time beef was termed a "seasonal" product and now will go up in price when cattle are stall-fed and down when on the grass.

This no doubt means it will cost the country a substantial subsidy to keep sufficient cattle off the export markets for home consumption.

Cutting Frills

There is not much leeway for cutting out frills in the sale of fresh meats. Sanitary conditions must prevail from the time a steer enters the abattoir until it's ready for the pan. Adequate refrigeration is essential at both ends and in the middle. It's a perishable product and although better by being hung a couple of weeks, almost daily deliveries are required. In the United States boned beef is now being shipped on contract to several camps of the armed forces so that there is no waste and the bone, surplus fat, etc., are retained in the abattoir for the manufacture of soap or shortening and fertilizer. This is a possibility for the future for Canada, but not a fact today. So there aren't many frills to discard and this has made absorbing the "squeeze" all the more difficult.

Quality of meat is, of course, not a constant factor, unlike a package of cereal or a barrel of flour from No. 1 Northern. Different areas and different soils produce different textures and flavors of beef for instance. Its quality is better in winter when stall-fed. Some types of cattle are better for beef than others. Certain cuts from a carcass are better than others.

Meat producers of Canada are realizing more and more the necessity of raising quality hogs, lamb, veal and beef. If we are to hold the British market after the war we must supply the bacon the people there want. Experts agree there certainly hasn't been any deterioration in quality of any of our livestock since ceilings began—if anything it's the opposite.

Quality Still High

Not lack of quality, but rather of quantity, has been and is affecting sales. This has been responsible for beef being sold before it had been hung sufficiently long.

As far as future supplies are concerned it's almost a certainty we'll be still shorter on pork products with the exception of lard and sausage. Canadian farmers have got to produce still more hogs if the 700 million lb. are going to reach the Mother Country. It will be a struggle as farmers are encouraged to raise more sheep and beef cattle as well. Because of this hog shortage, healthy Canadian appetites are bound to switch still more to beef and other meats so that production won't be able to keep more than a nose ahead of consumption, if it does that.

Canada has never produced sufficient lamb for home consumption — our supplies having been augmented in the past by fairly substantial imports from Australia. It is from that country too, that we used to get a lot of fats for soap manufacture. Everyone is familiar with the transportation problem from our sister dominion.

Lots of Lard

Incidentally, the lard and shortening picture has changed considerably from a year ago. In middle of 1941 large supplies of lard were taken off the Canadian market for Britain whereas this year there is little or no export at all and heavy stocks are in warehouses and available for consumption. On the other hand the shortening situation is worse due to the Japanese cutting off sources of supply of vegetable oils in the Far East. This situation was reflected in a recent W.P.T.B. order curtailing use of these oils to 56% of those in a like period last year. Before the war vegetable shortening was selling at a cent or two a pound less than lard, whereas today it runs five or six cents higher in retail stores. It's now a combination product due to necessary use of part fats in its manufacture.

It's evident that Canadians this winter are going to be still more familiar with the taste of poultry and fish, providing sufficient of the latter can be secured from submarine infested waters.

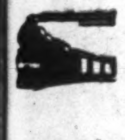
The Week in Business

Evidence continues to accumulate that Canada's industrial machine is pushing along at just about the peak of its capacity. One indication is employment indices which are now showing less than seasonal expansion, reflecting the fact that for the over-all industrial picture the usual margin of employables is greatly depleted. With this condition of "full employment" seasonal increases of normal proportions do not occur.

Significant is the fact that new war contracts placed in the first five months of 1942 were valued at $434.5 millions or $53 millions less than for the same period last year.

Cigarette consumption continues to climb with July total of 843 millions comparing with 772 millions in June. The first seven months' total of 5,479 millions is up 19.6% over the same period a year ago.

Life insurance sales in July at $44.8 millions were almost $12 millions higher than the previous month. At $283.6 millions the total for the first seven months of 1942 was 22.6% higher than last year.



Railway operations continue to hold at a high level. Carloadings during the past week were almost the same as a year ago, with the cumulative total this year up 8.5%. C.N.R. gross revenues so far this year are up 22.8%, C.P.R. gross up 18.8%. C.N.R. net revenues for the first seven months are up 23.6%.

Automobile financing has been hard hit by the war. In the first seven months of 1942 used car financing dropped 66.6% from last year while new car financing declined 79%.

	July	June	May	Apr.	Year Ago
The Financial Post business index	*166.7	165.7	168.5	168.0	164.9
Dom. war expend. (million $) ...	190.4	138.3	204.9	142.2	107.8
Dom. total revenue (do.) ...	121.8	115.4	333.9	170.8	96.1
Dom. total expend. (do.) ...	350.8	423.6	386.2	247.5	146.7
Retail sales index no.	....	150.7	149.1	155.7	134.3
Dept. store sales index no.	....	133.5	140.1	148.8	123.1
Wholesale sales index no.	....	166.8	158.6	154.5	140.6
Country store (% change pr. yr.)	....	....	+11.7	+14.0	+8.8
Divd. payment index♠	122.6	121.8	120.9	121.0	118.8
Bank deposits (1926=100)	164.8	160.1	167.6	169.8	156.4
RAILWAY FREIGHT LOADINGS—					
Tons	176.5	188.9	182.3	189.3	164.1
Cars	148.1	141.4	142.3	140.3	139.6
COST OF LIVING—					
D.B.S. index	117.9	116.7	116.1	115.8	111.9
EMPLOYMENT INDEX Nos. D.B.S.—					
All industries	....	171.7	167.4	165.2	152.9
Manufacturing	....	205.9	202.3	199.4	168.0
Payroll (June 1/41=100) (b)	....	125.6	124.0	121.6	100.0
Payroll index (a) (1937=100)	....	201	197	187	170

			Jan. 1 to date		%
	1942	1941	1942	1941	Change
RAILWAYS—					
*Carloadings (week Aug. 15)	64,245	64,247	2,092,056	1,927,770	+8.5
*C.N.R. gross (week Aug. 21) $	7,842,000	5,832,000	225,681,000	184,599,000	+22.8
*C.P.R. gross (week Aug. 21) $	4,696,000	4,742,000	157,381,000	132,.91,000	+18.5
*C.N.R. net revenue (July) $	7,732,147	4,916,312	45,751,017	37,024,523	+23.6
C.P.R. net revenue (June) $	4,174,365	4,068,304	21,948,083	19,919,694	+10.2
IRON AND STEEL—(June)—					
Pig iron production (tons)	167,961	125,790	974,000	700,617	+39.0
Steel ingots and castings prod. .... (tons)	254,163	209,622	1,559,238	1,286,246	+21.2
AUTOMOBILES—(Number)—					
Passenger Cars:					
Domestic sales* .. (June)	474	8,099	14,044	58,083	—75.8
Trucks and Buses:					
Domestic sales* .. (June)	546	3,554	11,817	20,770	—48.1
Financing:					
*Used .... (July) $	1,944,274	5,725,016	11,660,309	34,952,603	—66.6
*New .... (July) $	291,045	3,478,182	5,503,691	26,151,331	—79.0
CONSTRUCTION—					
Contracts awarded . (July) $	32,093,400	31,954,800	167,040,600	247,421,400	—32.4
Cement prod., bbls. (May)	790,000	861,000	2,392,615	2,392,733	—0.04
AGRICULTURE—					
Flour prod., bbls. .. (June)	1,335,177	2,117,976	9,725,208	10,016,499	—2.9
Cattle sales▲ ...... (June)	92,559	82,866	524,829	476,488	+10.1
Hog sales▲ .... (June)	425,530	383,747	3,147,709	2,893,982	+8.7
SEA FISHERIES—‡					
Catch, cwts. .... (June)	810,400	857,800	4,101,540	3,546,400	+15.6
Landed value ...... (June) $	3,384,300	2,581,300	9,670,446	7,411,900	+30.4
NEWSPRINT—					
Production, tons ... (July)	241,178	293,483	1,899,352	1,914,617	—0.7
Exports .... (May) $	11,868,000	12,572,000	62,153,000	56,489,000	+10.0
MINING AND OILS—					
Coal prod., tons ... (June)	1,367,563	1,179,576	9,416,513	8,461,714	+11.2
Coal import. tons ... (May)	2,267,879	1,309,690	7,055,478	3,567,819	+97.7
Gold rec., fine oz. . (July)	431,435	453,184	2,801,623	2,993,063	—6.3
Petroleum prod., gal. (June)	1,180,712	818,000	5,568,700	4,873,000	+14.2
ELECTRIC POWER OUTPUT—(June)					
Total monthly, 1,000 kw.h.'s	3,043,200	2,560,060	18,612,384	15,732,385	+18.3
FOREIGN TRADE—♦					
Imports .... (Apr.)	$141,946,063	106,268,419	548,514,620	402,264,731	+36.3
Exports .... (Apr.)	169,997,596	118,393,094	667,451,667	410,828,290	+62.5
OTHER INDUSTRIAL FACTORS—					
Dressed lumber exp.: 1,000 bd. ft. ...... (May)	172,854	152,756	701,305	782,052	—10.3
Shoes, prod., pr. .... (June)	2,891,123	2,781,325	16,493,270	14,956,922	+10.3
Cotton consump., lb. (June)	14,970,262	15,915,739	99,626,902	98,620,215	+1.0
Raw rubber imp. lb. (Apr.)	17,023,133	6,669,217	38,523,612	36,901,434	+4.4
*Cigarette cons., No.† (July)	843,605	772,165	5,479,226	4,580,845	+19.6
Sugar manufactured .. lb.§	90,187,029	87,221,405	1,199,719,338	1,137,792,237	+5.4
FINANCE—					
Bank debits† ...... (June) $	3,767,042	4,240,630	21,591,707	18,810,099	+14.7
Bond sales† ...... (June) $	283,602	886,967	2,002,923	1,573,615	+27.2
*Life insurance sales (July) $	44,868,000	32,681,000	283,648,000	231,447,000	+22.6

*D.B.S. All Canada figure covering 90% of the Canadian total.
‡Unrevised figures covering N.S., P.E.I., N.B., Que., B.C.
▲Total at yards and plants.
†000's omitted. §For four weeks to Dec. 31. ♦Gold excluded.
♠Supplied by Nesbitt, Thomson & Co. *Preliminary.
(a) Compiled by Canadian Bank of Commerce. (b) All industries.

Tomorrow's Money

One cannot tell when the war may be won, but this is certain: those who save money now to have funds after the war, will never regret it.

Small savings should be invested in War Savings Certificates. Amounts of $100 or over should be invested in Victory Bonds.

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On the Record

More than 300 mobile dental clinics for Canada's armed forces have been equipped by the Dept. of M. & S.

Browning .30 calibre tank machine guns are now being produced in Canada.

50,000 harvesters are needed for the crops in western Canada.

National registration of women to be carried out by age groups. First of the registrations, to cover the ages between 20 and 24, will be taken during the week starting Sept. 14.

Veneer Log Supply Ltd., a new Crown company, with head offices in Montreal, has been created to assure adequate supplies of veneer and plywood for aircraft production in the U. K. and Canada and will purchase, inspect and ship all hardwood veneer logs produced in eastern Canada.

President and managing director **S. J. Staniforth**, formerly Assistant Timber Controller in charge of hardwoods and logs, and president, Staniforth Lumber Co., Ltd., Montreal.

Vice-president and treasurer: **Col. G. M. Strong**, president, G. M. Strong Co., Ltd., Montreal.

Directors: **P. B. Bourget**, manager, Singer Manufacturing Co., Thurso, Quebec; **J. S. Bock**, president, Eagle Lumber Co., Ltd., Montreal; **K. L. Golding**, Fredericton; **H. J. Flemming**, vice-president, Flemming & Gibson Ltd., Juniper, N.B.; **J. W. Harding**, president, Quebec Hardwoods Ltd., Montreal.

Judge T. H. Barton, deputy administrator of rental appeals, appointed administrator in succession to **Hon. J. D. Hyndman.**

Ration Book No. 1 to be distributed through the post offices commencing Aug. 24.

W. D. Lachapelle, Ciba Building, Montreal and **A. W. Rymal**, Terminal Building, Hamilton, appointed in charge of regional offices of the Priorities Officer opened in Montreal and Hamilton.

30 cents a day for every person in Canada must be borrowed in this fiscal year to meet wartime expenditures.

Porto Rico Power Co., a subsidiary of International Power Co., is entering an appeal against the decision which permitted expropriation of the properties of its subsidiary by the United States Government in July, 1942. The amount fixed as compensation for the property also is being appealed.

Aircraft Bearings Resources Pooled

To pool Canada's resources of bearings for aircraft and speed up procurement of supplies for the aviation industry, Aircraft Bearings Ltd., a non-profit organization, has been formed in Toronto.

Calling the action of the anti-friction bearing dealers a "truly patriotic gesture," Ralph P. Bell, Director-General of Aircraft Production, stated that the company had undertaken one of the most difficult procurement problems in the current programme.

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The personal requirements of the individual in investment matters constitute an important feature of our investment service. This service is available without obligation at any of our offices.

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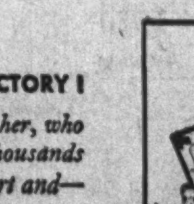
WORKING FOR VICTORY AND SAVING FOR VICTORY!

Pictured on the left is F. J. King, a skilled wood finisher, who has been with us for many years. He's one of the thousands of us Working for Victory through all out War Effort and— Saving for Victory through continuous and regular purchases of War Savings Certificates.



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Bike Insurance Need is Seen

Companies Study Forms and Types of Cover

Increasing use of bicycles by civilians in Canada and the United States is receiving attention from insurance companies which see in it a field for increased business.

Interest is stimulated by prospects that gasoline and tire restrictions will see many cars laid up for the duration of the war in the next few months with the volume of automobile insurance declining accordingly.

Cost of bike insurance for theft, etc., is around $5, public liability extra.

It is realized the premium on an individual bicycle is small and that it will take five or six of them to equal the premium of one automobile policy. But it is felt that as the use of bicycles grows, the aggregate amount of business available will be substantial while it also draws attention to other kinds of insurance such as personal accident, etc.

Some companies are already issuing bicycle coverage contracts. Others are still studying the problem.

Use of bicycles is growing, not only among men and women riding to work at office and factory but as a method of delivery by retail stores.

There are two main types of coverage:

One insures the owner against loss through fire, theft or damage to the bicycle by lightning, windstorm, etc.

The other against liability for injury to other people or other people's property.

Some companies, it is understood, are selling complete protection just as in the case of an automobile. This gives indemnity against loss by fire, theft, collision, and damage in transport, property damage done by the cyclist and public liability.

Other companies feel that while full coverage may ultimately be necessary, the urgent need is protection against fire and theft. Theft protection is written in most cases against theft of the whole bicycle, not theft of the bell or part of the equipment.

Most bicycle policies are written on an ordinary general property floater form. But holders of ordinary personal property floater policies do not have bicycles covered by it without specific coverage and payment of an additional premium.

One company that has done considerable business of this kind requires the applicant for insurance to sign a form giving essential information such as the name of the bicycle and the maker, serial number, when and where bought, cost price, name, occupation and address of the owner, the purpose for which the bicycle is to be used and other such details.

This company's policy protects against loss by fire, theft, lightning and windstorm and damage sustained in transport. The ordinary policy is for $50 or less. The market for this kind of policy is said to be more active in Western Canada than in the east. A number of bicycle clubs in the west apply for insurance for the bicycles of their members under a club or fleet policy. This enables the company to write a lower rate than when each bicycle is written separately.

War Clause Inserted

All policies, it is understood, contain a war clause which frees the insurer of liability for damage due to enemy action or war conditions. The company cannot be held liable for damage due to tire blowouts. Insurance of the bicycles against fire, theft, windstorm lightning and damage caused by collision or by overturning of a vehicle in which it was being transported, etc, costs around $5 with public liability and property damage costs extra at moderate rates.

Public liability and property damage are sold with the same limits as automobile insurance, it is understood, namely $1,000 property damage and $5,000 liability for injury to one person and $10,000 for any one accident.

Some companies while admitting their interest in bicycle insurance are waiting until the probable number of bicycles in use and the possible loss ratio can be estimated more closely.

Ship Collision in Convoy Held as Marine Risk

A legal decision in England ruling that a collision between ships under convoy in the case under trial was a marine risk and not a war risk, is of importance to marine insurance circles.

It would appear to establish the rule that loss due to a collision in wartime should be considered as due to a peril of the sea, not as due to warlike operations directly.

Facts of the Case

Facts of the case, as reported on this side of the Atlantic, were:

A steamer, Clan Stuart, while in convoy to France was sunk in collision with the Orlock Head which was carrying war material and was following a course set by the admiralty. The collision occurred before the fall of France. The Orlock Head was admittedly the cause of the disaster. The question at issue was whether she was engaged in a warlike operation or not.

It was claimed, according to earlier decisions that a vessel engaged in a warlike operation must be carrying military equipment or stores, must be destined to a theatre of war or for a military force engaged in military operations.

Not a Warlike Act

In the case on trial it was argued these conditions were all absent. The Orlock Head was taking steel for the making of shells for the French Army and some general cargo for Rouen which was at that time being used for ordinary commercial purposes.

The view taken by the court was that the cargo was not military nor was it designed for a force in the field or connected with any belligerent act or acts of an army. The collision, moreover was not a consequence of warlike operations.

Accordingly it was decided the claim was a marine risk and not a war risk.

It would seem that underwriters issuing a marine policy, thereby are liable for all losses due to the perils of the sea including collision but not those due to torpedoes, mines, acts or war or belligerent acts by combatant forces whether offensive or defensive.

Bank of Canada Note Issue Up

Note circulation of the Bank of Canada continues to increase, the total shown in the statement for the week ended Aug. 19 being $582.5 millions compared with $578.7 millions in the previous week and $415.6 millions on Aug. 20 last year.

Deposits of the Dominion Government with the Bank of Canada fell $28 millions during the week to $18 millions, representing withdrawals on war account and payments to the British Government. The latter were reflected on the credit side by a drop of over $9 millions in holdings of sterling to $1 million.

	Aug. 19 1942 $	Aug. 12 1942 $
Liabilities		
Capital paid-up	5,000,000	5,000,000
Notes in circ.	582,536,477	578,785,202
Rest fund	5,585,705	5,585,705
Deposits: Dom.	18,264,784	46,480,894
Banks	217,541,532	209,368,356
Other	18,399,182	15,003,208
Total deposits	254,205,498	270,852,458
All other liabs.	14,590,791	9,997,175
Total liabs.	861,918,471	870,220,540
Assets		
In Sterling & U. S.	1,032,330	10,487,330
Subsid. coin	374,426	419,446
Investments:		
Dom. gov. sh.	506,634,411	506,712,724
Other Dom. gov.	339,960,076	338,412,968
Total invests.	846,594,487	845,125,692
Premises	1,996,160	1,989,340
All other assets	11,921,068	12,198,732
Total assets	861,918,471	870,220,540

What price your good name?

In the days of restrictions, etc., that lie ahead, trade names should be protected by constant reminder advertising. Relying on a fickle public to remember brands and slogans, otherwise, is to assume that human nature has changed radically. No better medium offers itself for this purpose than the daily newspaper. The Evening Telegram reaches the third largest group of such readers in Canada, and these are located right in the centre of Canada's richest and densest consumer-buying area.

TORONTO IS A "TELEGRAM" CITY

THE EVENING TELEGRAM

Toronto's Most Interesting Newspaper

TORONTO CANADA

MONTREAL: E. R. CHOWN, Dominion Square Building

Banks' Foreign Deposits Up

War Affects Business of Branches Outside Canada

Although the bulk of the business of the Canadian chartered banks is done in Canada, a substantial volume takes place abroad as well. Some idea of this may be had from the figures at the end of June which show total foreign deposits to be over $506 millions with current loans on the same date of $133 millions and call loans of $54.2 millions. These compare with total deposits of almost $3.2 billions, total current loans of $1.2 billions and total call loans of $82.3 millions.

Since the outbreak of war bank business has been subject to considerable dislocation abroad as well as at home. Export and import restrictions, foreign exchange control regulations and priorities have affected imports and exports between Canada and the various countries where the Canadian banks do business. But on the whole the situation has been fairly satisfactory and, as indicated in the table below, deposits have shown some increase during the past year as have call loans while current loans are down slightly.

Five of the Canadian chartered banks, the Montreal, Royal, Commerce, Nova Scotia and Dominion have branches abroad. Outside branches are located in the United Kingdom, France, the United States, Cuba, the British West Indies and Central and South America.

Branches Outside Canada

The number of branches outside Canada and Newfoundland on July 31, according to the Bank Directory of Canada, was 107 compared with 31 in Newfoundland and 3,254 in Canada.

These branches in other countries have accompanied the growth of Canada's business and financial relations abroad. The Bank Act places no restrictions on the opening of branches abroad and action in that regard is limited only by the policy of the bank itself and of the country in which it is desired to do business. Conditions in the different countries vary considerably. Some, like Great Britain, have allowed free banking privileges to all comers. In other countries, there has been a tendency to discourage the spread of outside banking institutions.

In many of the areas bank business is considerably affected by seasonal conditions.

For instance, the movement of the coffee crop in Brazil or the sugar crop in the West Indies normally is accompanied by an increase in loans and general business activity. In this way the situation is normally somewhat similar to that in Canada when the wheat crop is moving.

Trade Limitations

Under war conditions, foreign business is subject to certain limitations. Lack of shipping and trade regulations, for instance, are preventing many exporters making shipments to Canada in the usual volume. War has cut off some markets entirely with domestic trade being affected by the reduced volume of exports.

Considerable emphasis in both banking and business circles is placed on the prospect of more active business between Canada and the British West Indies and Latin America after the war and it is felt there will be considerable expansion in Canadian trade and Canadian banking.

Deposits Outside Canada
Millions of Dollars

	1942	1941	1939
Jan.	448.5	409.8	430.4
Feb.	455.5	410.0	432.2
Mar.	473.4	410.7	452.3
Apr.	486.3	427.8	467.8
May	496.1	434.0	484.4
June	506.0	449.4	503.7
July	....	440.1	474.2
Aug.	....	450.7	500.9
Sept.	....	457.7	490.1
Oct.	....	460.1	492.2
Nov.	....	453.7	486.8
Dec.	....	462.2	474.5

Current Loans Outside Canada
Millions of Dollars

	1942	1941	1939
Jan.	137.7	131.1	147.6
Feb.	140.3	132.8	144.9
Mar.	141.1	131.8	144.4
Apr.	141.9	135.3	143.3
May	138.7	134.3	141.1
June	133.8	135.9	144.0
July	....	134.8	144.9
Aug.	....	133.2	140.9
Sept.	....	132.1	147.7
Oct.	....	131.9	147.6
Nov.	....	127.7	143.3
Dec.	....	136.2	147.1

Call Loans Outside Canada
Millions of Dollars

	1942	1941	1939
Jan.	43.8	38.3	56.1
Feb.	45.6	38.6	54.4
Mar.	49.6	49.5	49.4
Apr.	52.8	42.5	43.9
May	62.4	41.9	49.7
June	54.2	44.6	41.9
July	....	43.5	42.7
Aug.	....	50.3	41.8
Sept.	....	47.3	52.1
Oct.	....	45.6	46.2
Nov.	....	42.4	45.3
Dec.	....	47.6	48.6

Algoma Central Terminals bonds outstanding have been reduced by $81,000 since the beginning of 1942, The Financial Post is told. This would leave about $2.4 millions of these bonds outstanding with the reasonable prospect that further redemptions may be made from 1942 earnings. Gross traffic earnings of Algoma Central & Hudson Bay Railway Co., lessor of the Algoma Central Terminal, totalled $1.1 million this year compared with $812,507 for the corresponding period of 1941. April traffic earnings were $398,042 against $280,543 a year ago.

Consolidated Balance Sheet of

CANADA PACKERS LIMITED

(Incorporated under the Dominion Companies Act)

AND ITS SUBSIDIARIES

As at 26th March, 1942

ASSETS

Cash on hand		$ 27,114.31	
Accounts Receivable, less reserves		10,279,449.34	
Inventories of Products, Materials and Supplies on hand, on consignment and in transit—as determined and certified by the management and valued at the lower of cost or market less reserves		16,339,295.90	
Life Insurance (cash surrender value)		449,199.40	
Investment in Bonds and Shares at book value:			
Dominion of Canada War Loan Bonds due 1st March, 1948 (market value $1,990,000)	$2,000,000.00		
Less bank advances secured by these Bonds	2,000,000.00		
	—		
Other Bonds and Shares (market value $198,500)	$ 121,634.49		
		121,634.49	
Prepaid expenses		452,575.91	
Balances receivable from employees for War Loan Bonds purchased on their behalf (secured)		230,159.45	
Sundry advances, mortgages, deposits, balances receivable, and advances to employees for expenses, etc.		202,357.21	
			$28,101,786.01
Investments in and Advances to Subsidiary Companies, less Reserve:			
Investments		$ 340,003.64	
Advances		343,017.64	
			683,021.28
Fixed Assets—Land, Buildings, Leasehold, Plant and Equipment			22,594,799.53
Fixed assets which have been appraised are shown at their depreciated appraisal values, and other fixed assets are shown at not exceeding cost— The appraisals were made by— Dominion Appraisal Company Limited—31st March, 1927. Canadian Appraisal Company Limited—31st March, 1919, October, 1919, and 30th September, 1922. American Appraisal Company — 1st October, 1919.			
Goodwill			1.00
			$51,379,607.82

LIABILITIES

Borrowings from Bankers and Others (secured $9,528,350)		$14,167,782.49	
Accounts Payable and Accrued Charges		2,779,537.82	
Reserve for Income, Sales, Municipal and other Taxes		3,055,888.73	
Accrued Bond Interest		13,507.89	
Dividend Payable on Common Shares, 1st April, 1942		200,000.00	
			$20,216,716.93
Collateral Trust Debentures—Authorized 6,000,000 whereof outstanding:			1,500,000.00
2½% Debentures due 2nd January, 1943	$ 750,000.00		
2¾% Debentures due 2nd January, 1944	750,000.00		
	$1,500,000.00		
Reserve for Depreciation			13,033,688.44
Surplus on Appraisals			5,617,482.73
Capital—Authorized and Issued:			
200,000 Common Shares of no par value		$ 1,438,284.46	
Earned Surplus Account		9,573,435.26	
			11,011,719.72
			$51,379,607.82

Consolidated Earned Surplus Account

Balance at credit 27th March, 1941	$ 8,761,970.35
Net profit for the year	1,611,464.91
	$10,373,435.26
Dividends paid or payable for the year	800,000.00
Balance at credit 26th March, 1942	$ 9,573,435.26

Company Reports

Sutton-Horsley

Sutton-Horsely Co., makers of electrical apparatus and specialities at Toronto, reports net profits for 1941 equivalent to six cents a share on its 142,105 common shares outstanding. The previous year, a period of organization and preliminary operations to a considerable extent for the company, showed a small loss.

The company reports unfilled orders of more than $3 millions and an annual production rate of $2 millions. Workers now number 600 compared with about 200 a year ago.

An interim dividend of five cents a share was paid to shareholders of record May 31 last but is not shown in the latest accounts.

Income and Surplus Account
Years Ended Dec. 31

	1941 $	1940 $
Net revenues:		
Prof. on govt. contr.	†38,509	......
Operating profit	......	1,449
Sundry revenue	660	285
Total revenues	39,169	1,734
Less: Advertising	3,977	1,695
Int. & discts. allow.	5,433	110
Discounts on rates..	7,225	......
Income & E.P. taxes	11,071	......
Sundry	2,835	604
Net profit	8,628	*675
Add: Prev. balance	*675	......
Adjust. 1940 earns...	3,847	......
Prof. on equip. sale	8	......
Surplus forward	11,808	*675

*Loss or deficit.
†Depreciation of $36,758 provided.

	1941	1940
Earned per share:	$0.06	nil
Working Capital		
Current assets	156,725	137,069
Current liabilities	116,412	95,152
Working capital	40,313	41,917

D. A. Stuart Oil

D. A. Stuart Oil Co., makers of industrial and special lubricants, reports net profits for the year ended May 31, 1942, of $3.89 a share on its common stock against $2.64 the previous year, in each case without allowing for participation with the preferred. The company has declared a participating dividend of 25 cents a share on its preferred shares since the close of its year, payable Sept. 1. and comparing with 50 cents a share paid last year.

Sales last year are stated to be virtually double those of the previous year due to steadily increasing activities in the metal working trades. The company redeemed 1,700 preferred shares last year at a cost of $24,855, leaving 40,181 shares outstanding at May 31.

Balance sheet shows a gain in merchandise inventories to $327,037 from $162,525. Drums and other containers, less reserve, are now shown at $49,863 compared with $4,445. A bank loan of $90,000 is shown where none was reported a year ago.

Income and Surplus Account
Years Ended May 31

	1942 $	1941 $
Operating profit	378,401	228,303
Less: Depreciation	6,425	13,552
Income & E.P. taxes	205,805	85,000
Patent reserves	16,939	16,939
Net profit	149,231	112,812
Less: Pref. divds.	32,485	35,505
Common divds.	18,000	18,000
Partic. divds.	......	35,941
Surplus for year	98,746	25,366
Add: Previous surplus	69,726	67,762
Less: Excess cost pref. red.	7,855	4,228
Inc. tax adjust.	......	1,174
Com. divds., 1939-40	......	18,000
Earned surp. fwd.	160,617	69,726
Earned per share:*		
Preferred	$3.71	$2.69
Paid	0.80	1.30
Common	3.89	2.64
Paid	0.60	1.10

*Before participation.

	1942	1941
Working Capital		
Current assets	715,521	451,782
Current liabilities	423,633	243,887
Working capital	291,888	207,895

Hull Steel Foundries Building New Plant

From Our Own Correspondent

MONTREAL.—Hull Steel Foundries Ltd. has undertaken construction of a new steel foundry over and around a smaller plant which continues right along at capacity operation. When the outer shell is complete, the present foundry building will be dismantled.

The new building will be 518 ft. long, 101 ft. wide and over 70 ft. high—enveloping the present foundry which is about one third smaller. As soon as the steel of the new foundry is up, three permanent travelling cranes will be installed and they will aid in removing the steel frame of the present building.

34.2% Increase In Life Sales

Gains Shown in All Provinces and Newfoundland —Alberta Leads

Life insurance sales in Canada and Newfoundland continue to show an increase over last year. Statistics for July just issued show the total sales to be $44.8 millions compared with $32.6 millions in 1941 and $43.9 millions in June. The increase over last year is 34.2%.

Increases for the month are shown by Newfoundland and every province in the Dominion. The largest gain per cent was 63.7% in Alberta with Manitoba coming next at 48.5%. Ontario sales were up 36.7% and Quebec was up 35.2%.

Among the Canadian cities, increases over last year were Hamilton, 52%; Winnipeg, 51%; Vancouver and Ottawa, 48%; Montreal, 43%; Toronto, 37%; Quebec, 20%.

The figures are based on the sales of 18 companies representing 85% of the business in force. They were compiled by the Life Insurance Sales Research Bureau. They are exclusive of increases, revivals, dividend additions, annuities, group and wholesale insurance, etc.

Total sales for Canada and Newfoundland in the first seven months of 1942 were $283.6 millions, an increase of 23% over 1941.

The gains in Canada contrast with a decrease in the United States, sales there being down about 21% for the month and about even for the year. Sales conditions in the United States are parallelling those in Canada in the first few months after the outbreak of war, when sales tended to decline.

Life Insurance Sales in Canada and Newfoundland
(000's $)

	July 1942	July 1941	Incr. %
Alberta	2,328	1,422	63.7
British Columbia	3,127	2,368	32.1
Manitoba	2,804	1,888	48.5
New Brunswick	1,162	868	33.8
Nova Scotia	1,952	1,411	38.3
Ontario	19,420	14,206	36.7
Prince Ed. Island	266	251	5.9
Quebec	11,573	8,556	35.2
Saskatchewan	1,627	1,231	32.2
Newfoundland	609	482	26.3
	44,868	32,681	34.2

Sales by Months 1939-1942
(000 of $)

	1939	1940	1941	1942
Jan.	28,767	33,726	28,326	43,081
Feb.	29,202	31,820	31,500	39,357
Mar.	31,710	30,265	33,700	35,876
Apr.	26,357	32,248	35,398	36,232
May	30,123	31,779	36,172	40,336
June	32,226	28,530	33,670	43,898
July	20,902	28,159	32,681	44,868
Aug.	26,494	24,698	29,587	.....
Sept.	34,262	26,158	33,975	.....
Oct.	31,900	31,210	41,740	.....
Nov.	33,034	32,899	44,984	.....
Dec.	34,759	33,727	47,172	.....
Total	368,726	365,217	428,915	.....

Montreal Stock Exchange and Montreal Curb Market reports the value of listings showed a further decline at the end of July, at $3,495 millions. This contrasts with the previous month's total of $3,553 millions. Of the 20 classifications listed, seven were higher than at the end of June, with oils and utilities recording the greatest improvement.

Weekly Bank Clearings

	Aug. 20 1942 $	Change Year Ago %	Aug. 13 1942 $
Halifax	3,852,721	—9.0	3,708,022
Saint John	2,244,318	+1.3	2,463,861
Moncton	980,299	—9.3	1,022,495
Sherbrooke	1,169,945	+8.0	813,354
Quebec	5,983,611	+8.5	5,365,740
Montreal	138,712,782	+14.8	103,991,118
Ottawa	42,761,438	+24.9	75,062,717
Kingston	793,974	+5.6	800,804
Peterborough	839,604	+2.1	810,424
Toronto	141,315,081	+6.8	118,628,696
Hamilton	6,991,901	—0.5	6,551,416
St. Catharines	1,347,388	—0.1	1,315,723
Kitchener	1,337,380	—0.2	1,112,436
Brantford	1,116,727	+0.5	959,849
London	2,761,584	—1.6	4,339,861
Chatham	565,286	—9.4	689,160
Windsor	5,094,681	+43.3	4,958,762
Sarnia	594,628	+8.9	460,093
Sudbury	939,063	+1.0	1,259,232
Fort William	1,103,987	—2.6	1,114,634
Winnipeg	38,574,606	—17.4	47,471,707
Brandon	528,169	+15.9	457,122
Regina	4,243,710	+5.4	5,125,752
Moose Jaw	750,768	+7.9	744,544
Saskatoon	1,741,610	+25.2	1,702,980
Prince Albert	490,780	+17.5	494,320
Edmonton	8,202,928	+12.8	5,593,347
Calgary	6,973,443	+8.5	6,109,164
Lethbridge	656,829	+5.7	749,940
Medicine Hat	305,847	—21.6	332,397
N. W'minster	803,194	—9.9	956,750
Vancouver	25,638,173	+18.8	22,481,910
Victoria	2,139,261	+7.2	956,750

Sun Life Assets Top Billion Mark

From Our Own Correspondent

MONTREAL.—Assets of the Sun Life Assurance Co. of Canada are now well over the billion dollar mark, the highest since the company began business over 70 years ago.

Volume of business transacted this year continues to run well ahead of 1941, July producing a marked increase in new ordinary assurance over the like figure of last year. With an increase of over $40 millions for the first half of 1942, business in force now exceeds $3 billions. The increase over the period is 13% greater than the gain for the first six months of 1941.

Average Policy Is For $1,912

Higher income of the Canadian people has been reflected in life insurance sales, not only in increased total volume, but in higher average policies sold. In the first six months of 1942 the average new ordinary life insurance policy was for $1,912 compared with $1,749 in the whole of 1941 an increase of over 9%.

Of all the provinces, British Columbia showed the highest average at $2,010, with Ontario coming next at $1,972. Prince Edward Island showed the lowest average at $1,577.

The figures are issued by the Life Insurance Sales Research Bureau and are for ordinary insurance only, exclusive of group. They are based on the experience of 19 companies.

In the United States, the average policy sold in the period was for $2,087 compared with $1,902 in 1941. The largest average policy sold was $2,591 in the district of Wyoming.

Comparative figures for Newfoundland and the Canadian provinces follow:

Average New Policy

	Year 1941	1st 6 Mos. 1942
Canada & Nfld. total	$1,749	$1,912
Alberta	1,822	1,915
British Columbia	1,820	2,010
Manitoba	1,836	1,965
New Brunswick	1,604	1,662
Nova Scotia	1,645	1,727
Ontario	1,794	1,972
Prince Edward Island	1,561	1,577
Quebec	1,667	1,863
Saskatchewan	1,798	1,817
Newfoundland	1,701	1,747

WHAT! only $6.15 premium on a $5000.00 policy?

"Yes, that's your Monthly premium" (at age 30)

● Here is a new kind of life insurance that is giving thousands of Canadians who could not easily afford other types of insurance, the financial protection they need... security now and a guaranteed income in later life.

The plan works like this: you choose any policy that suits your needs, but instead of paying the first year's premium, you pay for one month only. For example, at age 30, the premium on a $5,000 Double Protection life policy is only $6.15. As a service to you, the company will accept your checks, one for each month of the year, all post-dated.

This system enables you to meet the extra demands upon your income—for war-time taxes and war-savings certificates—without letting your insurance program suffer. North American Life's monthly Budget Plan is the safe, modern, easy way to financial independence. Send the coupon for free Budget Memo Booklet and folder telling how you can have the extra protection you need for as little as $5 a month.

NORTH AMERICAN LIFE

HEAD OFFICE: 112 King Street, W., Toronto, Ont.

Without obligation, please send me information about your Special Budget Policy, together with free Vest Pocket Budgeting Booklet.

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WHEN IT IS MOST NEEDED

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A bridge noted throughout the world for the outstanding strength of its construction.
The scene of the first bombing raid in Britain —it stands proud and unscarred.

Your Income Tax

Payments of income taxes collected at the source begin in September. In this weekly column, The Financial Post answers problems you may have in connection with your income tax. In some cases, rulings have yet to be made, hence The Post can only cite informed opinion.

Unemployment Insurance

Each payday I have deducted from my pay a small amount for unemployment insurance. Am I allowed to count this toward the compulsory savings portion of my income tax?

No. Unemployment insurance deductions are not regarded as a savings under the provisions of the income tax amendments. Accordingly you would not be allowed to deduct your unemployment insurance dues from your compulsory savings.

* * *

Enlists in September

I understand men on active services except commissioned officers while in Canada are exempt from all income tax.

What is the position of a man who enlists in the army on Sept. 1 this year? Is he exempt from taxes on the civilian income received up to that date? If so, can he claim refund for National Defense Tax already paid in 1942?

He will not be exempt from income taxes on his civilian income if it was taxable, that is if it exceeded $660. He would not be entitled to refund of his National Defense Tax unless such tax would bring his civilian income below $660 and then only to the amount that would bring his income under that figure.

* * *

Wife Has Income

In your July 25 issue you state that if a man is married in September he could claim exemption as a married man for the full year. A friend of mine was married in June, 1941. His wife made over $800 in the first five months, including a bonus. He was informed that because his wife earned $830 he would be allowed only $750 exemption. The local income tax officials claim this is a ruling from last year's tax regulations. Is their stand correct?

In the enquiry answered in our issue of July 25 there was nothing to indicate that the wife was earning and had an income of her own. The case of your friend therefore is different because his wife did have an income of over $750. In that case, according to the regulations affecting income tax on 1941 income, your friend was entitled only to the exemption allowed a single man, namely $750. The point is that in one case the wife did not have a taxable income, in the other case she did. In the latter case the man, according to 1941 regulations, could not claim any allowance as a married man.

* * *

Annuity Payments

I notice that in The Financial Post last week you indicated that payments into a Dominion Government annuity would probably be deductible from compulsory savings. Has any definite ruling been issued on this point yet?

It is understood a ruling has been issued that contracts for the payment of pension where premium payments may be postponed and later resumed, without requiring the payment of all arrears and without postponing the original maturity date, do not qualify as a substitute for compulsory savings. This would appear to mean that payments into individual government annuities will not be deductible. This would be in accordance with the statement of Finance Minister Ilsley in the House of Commons that the deductible principle should apply only in pension plans where postponement of premium payments would cause loss to the individual.

London Calling

by Adelphi

LONDON.—Noel Coward used to sing a song called: "The Sun never sets on Government House." But that was in the days when the British Empire was intact and the Union Jack flapped in the soft breezes of Malaya and Burma.

Now in India the Viceroy's palatial residence is virtually a military headquarters. No longer is Government House a synonym for elegance and pomp, where A.D.C's attend to the orders of the incumbent and the whims of his wife. The Empire has become a grim affair, at once a source of strength and a vast area of vulnerability.

* * *

Gandhi Minus Halo

One of the decent weaknesses of the British character is to imagine that other people are much the same as themselves even if they speak a different language and indulge in quaint, foreign customs.

Thus Gandhi has always been regarded as a well meaning saint, an innocent who brought to politics an idealism and selflessness that was a reproach to western civilization. Lord Halifax, then Lord Irwin, received the little fellow as a holy man and an equal and the Hindus could not believe their eyes. "Look at me," Gandhi said in effect, "I ask nothing for myself. Give me some goat's milk, a loin cloth, a female worshipper or two, a hut wherein I can shelter from the sun, and all the reward I ask is to be allowed to serve India."

Obviously a decent fellow, not a pukka sahib of course, but a well meaning bloke. So reasoned the incorrigibly sentimental British. They are always forgetting that what men long for is power and that Gandhi not only longed but lusted for it.

Years ago he came to London and was received with dignity and almost homage. It was only when Gandhi talked off guard to a few journalists that we saw as alert a little politician as ever bemused a people. His eyes are as quick as those of a duellist and he has as keen a sense of values as a bank manager in a small town. Nor is he a mere sparrow of a man as his photographs indicate. He is a miniature but he is well proportioned and his chest is strongly muscled like that of a boxer.

* * *

Cue to Blackmail

I doubt if he intended originally in this war to attempt blackmail but the left wing extremists in Britain, well meaning sentimentalists that they are, gave him the cue. In their newspapers and on the floor of the House of Commons they urged the Government to make a great gesture and give Indian her freedom "so that she would come in to the war with us with all her strength." They said that it was failure to do this which was keeping America out of the war. If only we would clear out of India, lock, stock and barrel, then India (armed with sticks and stones and torn by internal revolution) would win the war for us.

It was sweet music to Gandhi's ears and he began to make his plans which, although thought to be secret, were known to the British. Stafford Cripps was sent out to make a firm offer—that India should have complete Dominion status after the war which would give her the right to remain in the Empire or withdraw from it—the same as Canada or Australia. But Gandhi's vanity and hunger could not wait. He proclaimed his orders for non-aggressive resistance to the British and he chose his moment well when Britain's anxieties were many and her prestige was low.

* * *

The British Bantam

Here in London a man no bigger than Gandhi, a man named Amery, did not hesitate. In that vast, uncomfortable room in the Colonial Office which Secretaries of State occupy, he gave an order. Gandhi was arrested. So was Nehru who goes to prison for, I think, the tenth time. "Don't go on hunger strike," said Mrs. Gandhi to Mr. Gandhi. That was good advice.

If Gandhi tries to self starve the British into releasing him he will find no mercy in Leo Amery. The little British Bantam is a fighter and does not suffer unduly from sentimentality. It was he who on that dreadful Saturday night before the declaration of war leaped to his feet and shouted to Greenwood, the Socialist: "Speak for England!" when the Tory Chamberlain had failed to do so. Nine months later in the Norway debate it was the Tory Amery who ended his speech by pointing his finger at Chamberlain and shouting: "For God's sake go!"

And Mr. Chamberlain went.

Mr. Amery was for ten years an editorial writer on "The Times." Later on he was a faithful lieutenant of Joseph Chamberlain in the tariff reform battles that split the Tory party and drove it into a generation of opposition. Baldwin had him in his first two governments but during the Socialist interruption of 1929-1931 Amery gave support to Churchill's opposition to the India reforms with the result that he was in the political wilderness until Churchill came to office in 1940. Mrs. Amery is a sister of Viscount (Hamar) Greenwood and believes in her husband's star. Thus Canada has a certain interest of association in this unhappy battle of the Bantams.

* * *

Stuart in London

General "Ken" Stuart, Canada's Chief of Staff, has been in London, living a crowded 24 hours each day.

In addition to innumerable inspections of Canadian units and many conferences with high military authorities, he had a long audience with the King. He also dined with Mr. and Mrs. Vincent Massey when the guests included Anthony Eden and his wife, Lord and Lady Camrose (of the "Daily Telegraph"). General Harry Letson and the late American Ambassador to Italy.

LT. GEN. STUART

He is a striking personality, this Canadian Military Chief. He has a warm, friendly manner which is in agreeable contrast to the traditional military high Command. Nor is he ashamed of his enthusiasms. He believes that Mr. Ralston is a grand minister, that "Andy" McNaughton is a great soldier and that the Canadian Army is about the best fighting unit of its size in the war.

* * *

Sulzberger of The "Times"

Another important and welcome visitor from overseas is Mr. Arthur Hays Sulzberger, the 51-year-old publisher of the "New York Times." Here is a mighty friend of Britain and civilization. Through every kind of weather he supported the British in their attempts to halt Hitler and constantly urged the necessity of America taking her full share of responsibility in world affairs.

His is a strange story. He began his career in the cotton goods business. Then in the last war he was a lieutenant of artillery. During that period he married the daughter of Mr. Ochs, the publisher of the "New York Times." In 1919 he joined the famous newspaper enterprise over which his father-in-law presided and when Mr. Ochs died he succeeded to the throne.

Since it is impossible to keep Canada out of these notes I might as well record that he is a director of the Spruce Falls Power & Paper Co.

* * *

Randolph Returns

The Churchills are a family that likes to go places. Randolph Churchill is back in London again after a journey from Egypt which took him to America before flying to London. He is in bad shape, after the motor car accident in the desert which killed two of his companions.

If Randolph is unfit to resume his military service he will undoubtedly add to the Premier's complications in case he devotes his whole time to the House of Commons. He has courage, and a good deal of debating ability but he lacks charm, sensitivity and tact. However, a man is entitled to his own mistakes and perhaps Randolph will mellow with time.

At any rate he is home and we always like our Churchills to be at home whenever possible.

Your Investments

What We Do:	What We Don't Do:
1. Give information on Canadian securities to Financial Post subscribers.	1. Answer enquiries of non-subscribers.
2. Publish anonymously letters of general interest.	2. Answer enquiries on foreign securities.
3. Supply facts rather than opinions.	3. Reply by telephone or telegraph.
	4. Select list of securities; express opinions; or make forecasts.

Three-cent stamp and address label from subscriber's copy of The Financial Post must be enclosed. Address letters to The Financial Post, 481 University Ave., Toronto 2.

Abitibi Bonds

What are the prospects for a further distribution to Abitibi bondholders this year?

It is reasonable to expect some further distribution on the 5% first mortgage bonds of Abitibi Power & Paper Co. this year. The policy of the bondholders' protective committee is to distribute funds as these become available out of earnings, having each distribution count as a return of capital rather than as a payment of interest. Present indications are that earnings in 1942 will be close to those of 1941 without allowing for any increased taxes.

Current outlook for the newsprint industry in Canada is not altogether clear, but it is becoming evident that operations have probably seen their peak for some time to come. Steps are being taken to transfer some labor and electric power from the newsprint industry to wartime needs.

Collection Agencies

As a merchant in Nova Scotia, I am thinking of engaging an Ontario collection agency to collect accounts. Will you suggest what investigation I should make first?

Before engaging a collection agency, we would suggest that you write to the Registrar of Securities at Halifax to find out what your position would be with regards to protection and guarantees in Nova Scotia. When operating in Ontario or Quebec, such agencies have to be licensed which gives some guarantee as to reliability.

It is also suggested that, when assigning accounts to a collection agency, careful study be made of the contract and that the merchant have an understanding as to how far the collection agency is permitted to go to make collections.

Massey-Harris

Is Massey-Harris benefitting at all from the need for farm implements? Will it be affected by official restrictions on this type of production?

Farm implement sales of Massey-Harris Co. in the first six months of the current year were ahead of a year ago. The improvement is said to have been due to the urgent need for farm equipment resulting from shortage of manpower, enhanced farm purchasing power and an important backlog of requirements. Farmers are reportedly ordering their machines several months earlier than would normally be the case, as they foresee an increasing shortage of farm implements. However, for the year ending Nov. 30 it is expected that the company's implement sales will be lower than last year owing to government restrictions.

War production in the Canadian and U.S. plants of Massey-Harris is steadily increasing, a factor which has helped to push the company's manufacturing activity to a new high level.

Ottawa Light

What is the outlook for the continuance of the current dividend by Ottawa Light, Heat & Power?

Ability of Ottawa Light, Heat & Power Co. to continue payment of dividends on its common stock at the current 60-cent a share annual rate appears somewhat doubtful although no information is available as to the exact effect of new taxation scheduled. Last year the company earned 46 cents a share on its common and paid 60 cents. It will probably be able to cover the regular dividends on the preferred without any particular difficulty.

Simpsons Preferred

What is the position of Simpsons Ltd. preference shares?

The preference shares of Simpsons, Ltd., have suffered severe market depreciation this year, apparently respecting fears on the part of investors that the company's operations will meet with increasing difficulties as supplies of goods become more scarce.

There are arrears of $22.62½ a share on this stock although regular dividends of 6½% a share are being paid at present.

Canadian Canners

Would the first preferred shares of Canadian Canners rank as a "sound security?"

The 5% first preferred stock of Canadian Canners must be ranked as a reasonably sound security representing a company which dominates its field in an essential food product in Canada. The company has earned the dividend on this stock each year since it was issued, with one exception, and it has always made regular payments. Last year it reported $5.88 a share on the first preferred as compared with dividend requirements of $1.20 which included a participating dividend of 20c. a share.

NOTICE

RE PAYMENT OF INTEREST AND DIVIDENDS

Tax Deduction at the Source

In accordance with the provisions of Section 92 of the Income War Tax Act, deduction at the source at the rate of 7% must be made from any amount liable to be paid on or after 1st September, 1942, to an *individual* resident of Canada (other than to a person described in sub-section 12 of the said Section) representing—

1. Interest on a fully registered bond, debenture or other similar obligation.
2. Dividend in respect of any share of stock.

The full amount so deducted must be remitted to the Inspector of Income Tax within one week from the interest or dividend due date.

Remittance Forms TD-2, to be used when remitting amounts deducted at source, may be obtained from any Inspector of Income Tax.

There are penalties for failure to deduct or remit.

Dominion of Canada—Department of National Revenue
INCOME TAX DIVISION
HON. COLIN GIBSON, *Minister of National Revenue*
C. FRASER ELLIOTT, *Commissioner of Income Tax*

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VICTORY BONDS and WAR LOAN BONDS — Take them to your bank . . . to any branch of any chartered bank . . . the bank will put them into safekeeping for you, will clip your coupons when the interest falls due, and will deposit the money to your name . . . If you haven't a bank account you can authorize the bank to open one for your convenience.

The total charge for this service and safekeeping is only 25 cents a year on bonds (no matter how many) up to $250 . . . one-tenth of one per cent on amounts over $250.

WAR SAVINGS CERTIFICATES—You can lodge them also with your bank . . . which will take them into safekeeping and for just one small charge cover the whole of the time (or any part of it) from purchase to maturity. Here is all it will cost you — not just for one year — but for 7½ years:

For a $ 5.00 certificate	$0.10
For a $ 10.00 certificate	.15
For a $ 25.00 certificate	.20
For a $ 50.00 certificate	.25
For a $100.00 certificate	.50
For a $500.00 certificate	1.00

THE CHARTERED BANKS OF CANADA

Mining INVESTMENTS

Canada's mining industry will face a difficult situation after the war, Dr. R. C. Wallace, principal of Queen's University forecast, in giving evidence to a committee of the House of Commons recently. A warning was given that no new money is going into the business, prospectors are no longer active, and no new discoveries are being made. To revive mining, it was proposed to bonus new operations and to alter the tax policy so as to spread the revenue over a longer period of time.

"One of the best things that could happen to Canada," stated Dr. Wallace, "would be a large base metal industry in iron and smelting, and if it is possible to develop the Steep Rock iron properties which are under negotiation west of Port Arthur and carry the ore down the lakes to lower Quebec, we could use some of Labrador ores as well and the power that is so abundant in Quebec, and we could find a market for a considerable part of the coal in Nova Scotia."

• • •

The Tin Research Institute, controlled and supported by the International Tin Research and Development Council, has undertaken a new type of work since the loss of our primary tin resources in the Far East.

Instead of developing new uses for tin, the Institute is now busily engaged in developing ways and means for economizing on our limited tin supplies and in developing substitutes for tin. Already, it has been found that important economies can be effected in joining lead-sheathed cables both by using a solder less rich in tin and by use of a new type of joint requiring not more than one third the quantity of solder needed for the traditional "wiped" joint. By using a "cup and cone" type of joint, it is possible to save up to 99% of the tin formerly used in 'wiped" lead pipe joints.

The institute is working on detinning economies and finds that thinly coated electrolytic tinplate has advantages as a substitute over ordinary tinplate in the present emergency.

• • •

Scrap iron regulations that no one may keep more than 500 lb. of scrap iron on hand may affect a considerable number of mining companies now closed down. After equipment hasn't been used for a great many years much of it sinks into the scrap category and undoubtedly a great deal of scrap exists at many old properties.

More than one dormant mining company could be embarrassed by any strict interpretation of the new regulations. A dormant company without funds may be charged with the responsibility of seeing that a considerable amount of scrap at some outlying point is turned over to the authorities. Just when equipment ceases to be usable and valuable is another point. Mines won't want to sell equipment for scrap when it might be of real value for development at some later date.

• • •

Lead supplies in the United States have become more ample, it appears. Washington authorities dropped the emergency pool of 15% of domestic production for the month of August. The industry believes that some curbs on use of lead may be eased before long.

When shortages in metals first developed, fabricators turned to lead as a substitute metal. Then lead joined the list of "tight" metals. Fabricators had to make the best use of wood or other raw materials which might still be available.

THE WAR TODAY

John Collingwood Reade

One of the best informed war commentators writing for the daily press today is John Collingwood Reade. Mr. Reade knows intimately the terrain he discusses as he has visited most of the countries in Europe, not once but several times. Recently he travelled by bomber to Britain where he talked with war leaders and saw at first hand all the gigantic preparations under way for both defensive and offensive action.

Under the heading "The War Today," Mr. Reade analyses and interprets each day's war news. His remarks are given extra value by reason of the new-type, large-scale war maps—brought up-to-the-minute each evening.

"The War Today" with its accompanying maps is to be found every morning on page three of The Globe and Mail. It is a thoughtful, informative feature which no thinking person should miss.

The Globe and Mail

At your home before 7 a.m.

Ottawa Officials Meet Prospectors' Delegation

Federal cabinet ministers were meeting with representatives of the Ontario Prospectors and Developers Association the latter part of this week to discuss points raised by a recent memorandum on prospecting submitted to Prime Minister Mackenzie King.

This memorandum told of the failure of the present prospecting drive for strategic minerals and offered concrete proposals for improving interest in hunting strategic minerals.

Say Situation Worse

Hon. T. A. Crerar, Minister of Mines, and Hon. C. D. Howe, Minister of Munitions and Supply, were the cabinet ministers to receive the delegation of the Ontario Prospectors and Developers Association. At an executive committee meeting of the Association held the previous Monday, it was agreed that the situation as regards strategic minerals was somewhat more serious than at the time the memorandum was submitted. With this in mind it was expected the committee would advise immediate remedial action.

What Is Wanted

The Ontario Prospectors and Developers Association has been calling for a "hard-driving production head" to take on the job of directing the search for strategic minerals. Along with this, the association wants a more clear-cut purchase policy for strategic minerals.

The feeling of the association is that while the Metals Controller has been doing good work, it is physically impossible for any human being to take on the dual roles of alloting metal to consumers and directing a widespread search for needed war minerals.

The Week in Oils

From Our Own Correspondent

CALGARY.—A major programme to step up production of 100 octane aviation gasoline is now nearing completion in Turner Valley and Calgary. It is backed by the Allied War Supply Corp.

The project involves expansion of absorption plant facilities to enable extraction of iso-butane from natural gas, and construction of an alkylate plant at Imperial Oil's refinery in East Calgary to produce alkylate from the iso-butane.

Both British American Oil Co. and Imperial are now producing 80 and 87 octane aviation gasoline at their Prairie refineries, and have already made some 100 octane with imported alkylate.

• • •

Gaspé Oil Search

The search for oil in Canada has spread again to the Gaspé Peninsular, lower lip of the mouth of the St. Lawrence River, with financial backing of a group headed by Paul Payette, Montreal.

The group has acquired petroleum rights on 85,000 acres from the Quebec Government, in Fletcher, Larocque and Galt counties, the eastern border of the block being about 10 miles west of the town of Gaspé. Granting of the rights and drilling permits was recently announced. The interests associated with Mr. Payette are active in oil development in western Canada.

Mr. Payette states that the decision to undertake drilling, and the selection of the site, culminated 12 months of geological study. Further geological work, and selection of initial drill-sites, will be done by Russell V. Johnson, Calgary geologist.

The 85,000 acres were said to cover two large potential oil structures.

Gaspé was favorably reviewed in the recently published work of the American Association of Petroleum Geologists, "Possible Future Oil Provinces of the United States and Canada." This book states: "Fifty-nine holes have been drilled in eastern Gaspé, mostly in the period 1860 to 1903. Most of them were located in synclines or well down the flanks of anticlinal folds. The few that were on anticlines penetrated only strata that were open on the structures, and did not reach to certain possible oil-bearing formations. The deepest of these earlier holes was 3,600 ft. In an unsuccessful attempt in 1939-40 a depth of 5,995 ft. was attained at a location well up an anticlinal fold. This hole drilled in Lower Devonian strata, probably entered the Silurian but did not reach the possibly oil-soaked zones of this formation, which is estimated to be 1,000 to 1,200 ft. deeper. The Ordovician might have been reached, if drilling had continued, at still an additional depth of about 800 ft."

The report comments that "Oil of excellent quality, but not in commercial quantity, has been obtained in wells and still flows from some of them after 40 to 80 years." Some of these wells are located within the block acquired by Payette and Associates, and have been taken over by this group.

Vermilion Development

Continuing its development in the area around Vermilion, The Northwest Co. has staked location for Northwest-Islay No. 1, 18 miles north and east of the Vermilion oil-producing section. This well is to be drilled following completion of Northwest-Manville No. 1.

Other Vermilion Area developments: Saskohead No. 1 location has been changed, and the derrick now up at the old site is to be moved to the new, which is in the northerly extension of the field, half a mile east of Atlas-Vermilion No. 1, currently drilling below 450 ft. and carrying 8⅝" casing. International-Hollingsworth No. 1, at last report, was drilling below 400 ft. after setting surface pipe at 165 ft.

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Notes on the Wells

Location has been staked for Imperial-Tilley No. 7, three-eighths of a mile northwest of the Tilley No. 1 gas well, and just over half a mile northwest of the Tilley No. 2 oil producer. Cellar has been completed and derrick is being started. The rig from Tilley No. 6, now completed and on test, is to be used.

Continuing development on acreage recently proven up in the North Extension area, Home Oil Co. staked another new site—for Home Millarville No. 15. The new test will be drilled by Drilling Contractors Ltd.

Recently completed Home Millarville No. 10 has confirmed expectations, being assigned a daily allotment of 653 bbls. retroactive to Aug. 1. With this quota, the well rates as fourth largest in the field. Gas-oil ratio used in determining the quota was 918 cu. ft. per bbl. Bottom hole pressure is 2,505 pounds.

Another producer has been brought in in the north Turner Valley extension area. Northwest Hudson Bay No. 7 has completed drilling 431 ft. in the Madison limestone at 8,600 ft. After being cleared of fluid and given 500 gallons of acid to each of the two porous zones the well was placed on production with an initial of 14 bbls. per hour. One thousand gallons of acid were then applied to each zone. The well responded with a heavy flush, and settled to around 45 bbls. per hour. It is now on test to determine allowable. The well is located three-eighths of a mile south east of Atlas-British Dominion No. 2 producer, and the same distance northwest of Major Oil Investments No. 7.

Goodrock Purchases Small Pilot Mill

A small 10-ton Halloway mill has been purchased by Goodrock Gold Mines to allow immediate production of tungsten from the scheelite ores found on its property in the Gordon Lake area.

The mill is already in the area and is now being moved to the Goodrock property along with sufficient equipment to allow deepening of the shaft. A. L. Schneider, consulting engineer, expresses the opinion a profit should be realized from operation of this small plant. Cobbed samples of ore examined by the Dominion Government geologist are reported to assay 2.12% WO_3.

Oil Royalties

Producing Wells — Prices and Payments

	Aug. daily allow. bbls.	July daily allow. bbls.	Apr. pay. 1% $	May pay. 1% $	June pay. 1% $	Paid to June 30 1% $	Dealers offering price† $
Ace No. 1 gross	543	538	242.98	241.82	241.87	2,920.90	8,500
Alta. Oil Inc. No. 1 gr.	80	76	53.20	52.40	48.40	3,395.60	1,500
Do., No. 1 net	80	76	44.40	42.00	39.60	3,916.40	1,100
Do., No. 2 gr.	522	518	229.20	252.80	234.80	5,169.60	....
Do., No. 2 net	522	518	208.80	231.60	213.60	5,190.60	6,600
Allied No. 1 pfd.	100	100	44.63	42.80	45.84	575.53	1,700
Arrow No. 1 net	150	156	77.20	78.00	70.00	1,285.60	1,900
Do., No. 2 net	190	196	76.40	94.00	80.00	1,218.20	2,400
Atlas No. 1 net pfd.	110	120	8.80	35.60	62.40	106.80	1,900
Atlas-Br. D. No. 2 pfd.	676	699	....	466.80	416.00	882.80	9,600
D. & D. net pfd.	75	75	34.40	36.40	32.40	1,693.40	1,200
East Crest No. 5	135	125	....	....	69.20	69.20	1,900
Independent No. 1 p.	225	235	150.65	148.99	133.92	1,602.79	3,700
Do., No. 1 gr.	225	235	107.84	107.09	97.75	1,670.90	....
Major Oil No. 1 pfd.	121	129	74.00	77.60	61.60	442.00	1,300
Do., No. 1 gr.	121	129	71.60	72.40	60.80	1,315.40	2,100
Do., No. 2 pfd.	604	623	446.80	430.40	376.40	3,447.80	7,100
Do., No. 2 gr.	604	623	334.40	331.20	286.40	4,550.00	....
Do., No. 2 dfd.	604	623	....	....	....	......	7,000
Do., No. 3 net	835	840	549.20	534.00	476.80	4,672.40	9,100
Do., No. 3 gr.	835	840	406.00	396.00	373.20	4,127.60	....
Do., No. 4 pfd.	268	304	384.40	325.20	292.40	1,512.80	4,600
Do., No. 4 gr.	268	304	276.40	248.00	218.80	1,842.80	5,800
Do., No. 7 pfd.	649	...	....	....	....	......	7,900
Do., No. 7 gr.	649	...	....	....	....	......	9,000
Do., No. 8 pfd.	...	...	....	....	....	......	4,400
Do., No. 8 gr.	...	...	....	....	....	......	5,800
Do., No. 9 gr.	488	400	....	....	45.20	45.20	7,500
Do., No. 9 pfd.	488	400	....	....	....	......	5,500
Miracle No. 1 pfd. net	409	453	456.48	414.82	155.36	4,047.41	5,400
Do., No. 1 gr.	409	453	316.47	296.21	273.68	3,800.08	7,500
Do., No. 2 pfd.	272	280	78.69	239.30	260.91	578.90	4,300
Do., No. 2 gr.	272	...	....	....	196.94	196.94	5,600
Renown No. 1 pfd.	100	...	....	....	46.56	46.56	1,500
Winalta No. 1 pfd.	93	96	54.40	72.00	41.20	3,300.30	1,000

†Approximately 20% below dealer's bid prices usually.

Drilling Wells — Prices and Depths

	Drilling depth ft.	Offering price per 1%		Drilling depth ft.	Offering price per 1%
Atlas Br. Dom., No. 3 p	6,368	*$4,375	Northend, No. 1 pfd.	8,042	5,000
Bonaventure, pfd.	6,365	3,400	Northend, No. 1 gr.	8,042	5,600
Major Oil, No. 6 pfd.	5,940	6,400	Northend, No. 2 pfd.	6,089	4,400
Major Oil, No. 6 gr.	5,940	7,500	Northend, No. 2 gr.	6,089	5,500
Miracle, No. 3 pfd.	5,872	5,000	Northend, No. 3 pfd.	8,765	3,500
Miracle No. 3 gr.	5,872	6,400	Northend, No. 3 gr.	8,765	6,200
Northclon., No. 1 pfd.	5,350	4,800	New Ranchmen's, pfd.	855	*3,200
Northclon., No. 1 dfd.	5,350	2,200	Empire, pfd. (Ont.)†	....	*1,100
Northclon., No. 1 gr.	5,350	6,300	Hi-Test Pete., pfd.†	....	*3,600

* Pegged price.

Canada May Get More Money For Silver Output

With the United States revising its silver-purchase policy, it is quite possible Canadian mines may soon receive nearly 10 cents an ounce extra for their silver output.

The U. S. Department of State and O.P.A. have already agreed to increase the price at which Mexican silver is purchased from 35⅜ to 45 cents an ounce and it appears the higher price will also be made applicable to other countries as well.

U. S. legislation covering imports of silver is in course of being revised and amended legislation will call for an increase in the maximum price from 35⅜ to 45 cents for silver imported from any country. Canada still produces a considerable amount of silver, with Consolidated Smelters the largest single source. Eldorado Gold Mines has a considerable silver content in its ore but is not emphasizing silver production at present. A higher price might bring a change.

La Luz Profits Move Lower

Tonnage Milled Increases — Aids War Metals Search

With value of production lower and operating costs higher, La Luz Mines profit moved lower for the quarter ended June 30, 1942. Net profit was $190,305 or 14 cents a share compared with $276,745 or 20 cents a share the preceding quarter. All figures are in U. S. currency.

Tonnage of ore milled showed an increase, 112,870 tons being milled compared with 110,824 tons in the March quarter. Value of recovery was lower at $687,155, however, as against $737,954 the preceding quarter.

Mining Costs Jump

Almost all items of operating expense showed increases. Mining costs were $108,515 against only $81,375 the quarter before. Milling cost was $132,700 against $129,013. General expense was $44,111 against $34,661 while Nicaraguan taxes were lower at $27,546 as compared with $28,440 in the first quarter.

Indicating capital expenditure has not yet ended, La Luz spent a further $142,822 on expansion in Nicaragua while $83,991 was advanced to Panaminas Inc., a wholly owned subsidiary, to further the search for and production of war metals. In the preceding quarter, $187,404 has been either spent on expansion or advanced for outside exploration.

Working Capital Improving

As at Sept. 30, 1941, working capital totalled $730,142 compared with only $188,644 at the close of the previous fiscal year. Taking into account operating profits realized since Sept. 30, 1941, and expenditures out of those profits since, it appears working capital is now in the neighborhood of $1.3 millions. This would be equivalent to approximately $1 a share on each of the company's outstanding 1,355,920 shares.

Ventures and Sudbury Basin Mines, as large shareholders, stand to benefit when La Luz commences dividends.

Company Reports

Canada Packers

Sales of Canada Packers Ltd. in the year ended Mar. 26, 1942, reached a new record high level at 1,228,029,942 lbs. as compared with the previous high set in 1941 of 1,091,263,352 lbs. Dollar sales pushed to a new peak of $144,509,292 as compared with 1941's $110,291,840. The heavy increase in volume was due almost entirely to war demand (military camps at home plus shipments abroad). Civilian consumption, especially of pork products, was curtailed in order that more might be available for Great Britain.

Company's net profit of $1.6 millions was equivalent to 1.1% of sales or 13.1 cents per 100 lbs. In the previous year profit was equivalent to 1.4% of sales or 14.4 cents per 100 lbs.

During the year Canada Packers paid off $750,000 2¼% debentures. This leaves $750,000 2½% due Jan. 2, 1943, and the same amount of 2¾% debentures due Jan. 2, 1944. Bank loans increased to $14.1 millions from $7 millions. The report explains the increase in bank loans is the "reflex" of the increased receivables plus inventories. This increase is due chiefly to sales to the Dominion government for war consumption. As at Mar. 26, 1942, value of meats in process for, plus sums due from, the Dominion totalled $6 millions.

J. S. McLean, president, notes that manpower is daily becoming a more difficult problem as experienced men join the armed forces and have to be replaced by inexperienced men. With volume of business continuing to increase, still more inexperienced help must be taken on. The company now employs 5,783 men and 1,123 women, as compared with 5,543 and 791 respectively a year ago.

Cons. Income and Surplus Account Years Ended	Mar. 26 1942 $	Mar. 27 1941 $
Net sales	149,350,783	114,630,193
Less: Trans. chgs.	4,841,491	4,338,353
	144,509,292	110,291,840
Less: Cost of livestock, etc.	117,479,229	88,959,695
Cost of materials	4,325,771	3,279,579
Wages & sals.	10,599,429	8,879,264
Expenses	5,503,858	4,612,389
War inv. res.	1,310,000	380,000
Depreciation	911,445	907,656
Bond interest	51,300	69,825
Taxes	2,677,775	1,575,638
Operating profit	1,650,382	1,627,792
Less: Invest. res.	40,000	76,800
Loss sale fixed assets	2,907	......
Add: Invest. inc.	3,990	4,037
Net profit	1,611,465	1,555,028
Less: Dividends	800,000	900,000
Surplus for year	811,465	655,028
Add: Prev. surplus	8,761,970	8,106,942
Surplus forward	9,573,435	8,761,970
Net profit per sh.	$8.05	$7.77
Paid	4.00	4.50
Working Capital	$	$
Current assets	28,101,786	18,298,984
Current liabs.	20,216,716	10,847,789
Working capital	7,885,070	7,451,195
Balance Sheet Changes	$	$
Accts. receivable	10,279,449	7,131,562
Inventories	16,339,296	10,384,095
Bank loans	14,167,782	7,027,142
Funded debt	1,500,000	2,250,000
Fixed assets	22,594,799	21,745,047
Less: Deprec.	13,033,688	12,116,417

Abitibi

Abitibi Power & Paper Co. net earnings in July were $507,745, before interest, depreciation and income taxes. This compares with $775,152 in July, 1941, and $557,920 in June, 1942. In the first seven months of this year Abitibi earned $4.9 millions against $4.6 millions a year ago.

July newsprint shipments dropped to 24,726 tons compared with 26,806 tons the previous month and 36,825 in July, 1941. Lower earnings for August as compared with a year ago are anticipated in estimated newsprint shipments of about 29,000 tons, as compared with 38,937 tons last August.

July shipments of sulphite and groundwood pulp amounted to 8,579 tons against 9,272 tons in June and 8,144 tons a year ago. Present indications are that August shipments of these products will amount to about 8,500 tons, against 9,067 tons August, 1941.

Earnings	1942 $	1941 $
July	507,745	775,152
7 months	4,953,238	4,624,282
Newsprint Shipments	1942 tons	1941 tons
July	24,726	36,825
7 months	233,322	234,937
Pulp Shipments	1942 tons	1941 tons
July	8,579	8,144
7 months	69,371	48,158

Canadian Breweries

Report of Canadian Breweries for the quarter ended July 31 shows moderate improvement in earnings over the period a year ago. For the first nine months of the current fiscal year net profits are up some $90,000. For the July quarter operating profits amounted to $841,107 against $644,084 a year ago. Taxes climbed to $415,000 from $235,300 to pare final net profits back to $260,485 compared with $252,001.

Comparison of the consolidated balance sheet at July 31, 1942 with a year earlier shows funded debt at $1,475,000 down $475,000; purchase liability and mortgages have been paid off, and working capital is some $70,000 higher at $1,865,861.

Cons. Profit and Loss Nine months Ended July 31	1942 $	1941 $
Operating profit	1,688,769	1,177,031
Add: Other income	36,311	35,384
	1,725,080	1,212,415
Less: Interest	80,982	96,658
Depreciation	401,368	366,041
Taxes	750,000	352,500
Minority ints.	21,812	15,775
Net profit	470,916	381,440

C. N. R. Creates July Record

From Our Own Correspondent

MONTREAL.—Sharply increased operating expenses of the Canadian National Railways during July were more than offset by the gain in gross income. Operating revenues totalled $33.1 millions and net income of $7.7 millions was the highest reported by the system for that month in any year since the system was established. Compared with July of last year, the current figure shows an increase of $2.8 millions.

As a result of the excellent showing made in July, operating revenue for the first seven months moved up to $202 millions or $35 millions more than in the like period last year. All but $8.7 millions of this additional income was absorbed by higher working expenses. This left net earnings of $45.7 millions, a new all-time record for that period, and $8.7 millions ahead of the 1941 returns.

July	1942 $	1941 $
Oper. revenues	33,133,000	25,655,442
Oper. expenses	25,400,853	20,739,130
Net revenue	7,732,147	4,916,312
Aggregate to July 31		
Oper. revenues	202,548,000	167,370,930
Oper. expenses	156,796,983	130,346,407
Net revenue	45,751,017	37,024,523

Predicting Rock Bursts To Become Possible?

From extensive research investigations, the United States Bureau of Mines is led to believe that careful investigation of rock noises may be the answer to the question of how to predict rock bursts.

Considerable money has been spent in Canada on rock bursts and as a result an improved technique has been developed for mining "rock burst country."

However, it is generally considered impossible to eliminate bursts even though it is possible to reduce their seriousness.

Predicting rock bursts has been considered an almost insoluble problem in Canada but from the U. S. Bureau of Mines studies, it seems that this may yet prove possible. Accurate advance prediction of rock bursts would go far to improve the safety factor in mining.

Noise Frequency Key

A special report of the U. S. Bureau of Mines—R. I. 8654—concludes that in certain cases at least, the number of sub-audible noises before a rock burst increases sufficiently to serve as a means of predicting rock bursts with moderate accuracy. At one U. S. mine, the Ahmeek, it was found that a rock burst can be anticipated if the number of sub-audible noises per unit of time increases by a factor of two or more over that of the preceding observation and that a condition subject to the occurrence of rock bursts shall continue to be anticipated if following observations show a further increase.

Bursts At Frood Mine

Investigations of the United States Bureau of Mines in Canada included the Frood mine of International Nickel Co. and the Lake Shore mine in the Kirkland Lake area.

At the Frood mine, it is stated that rock bursts occur at the rate of from two to four a month, occurring as severe "bumps" with no rock displaced. "There is considerable evidence of pressure," the report states, "particularly in the ore body, where large cracks occur, the floor is heaved in places and the timber is squeezed. Where the drifts run through wall rocks there is also cracking, often at a considerable distance from the ore body."

It was found at the Frood mine, the number of noises was relatively higher than in the surrounding rock in an area which subsequently burst. The occurrence of rock noises in pressure areas has particular significance, the report states, because it makes possible a method of determining pressure areas in underground mining, a point that has been one of the ultimate objectives of the general programme of investigation conducted by the U. S. Bureau of Mines laboratory.

Drilling Noises Trouble

The inability to discriminate between rock and drilling noises in certain mines restricts observations to periods when the mine is inoperative or to areas remote from operating stopes, a disadvantage that, to date, it has been impossible to circumvent.

For instance, at Lake Shore Mines, rock transmits sound with very little attenuation. Tests were made difficult by the fact rock drills can be heard running on an adjoining property at least 1,500 ft. away; at times the noise they made was sufficiently intense to obscure part of the local disturbances. Rock bursts are stated to be occurring at the rate of six a month of which about 85% are minor bursts. Many of the rock noises are in the high frequency category. The rock noises run about 20 a minute at Lake Shore and they may run higher in pressure zones.

At the Frood mine, noises were found to run 300 a minute in pressure zones for large and small disturbances.

From the survey, it would appear that the Frood rock is perhaps not quite as hard as that at Lake Shore.

General Conclusions

Some general conclusions are drawn from the studies of the U. S. Bureau of Mines. First, it was found that at the mines visited, rock bursts do not occur at depths of less than 2,000 ft. This is consistent with reports of other investigations of rock bursts in mining districts throughout the world.

It was concluded that the number of rock noises increases, in general, with the depth of the mining operation. Assuming that the pressure increases with the depth, this fact is consistent with the observation that the rock noises originate in rocks under pressure. The presence of rock noises is not restricted to any particular type of geological formation, it was concluded; in fact, the results indicated that rock noises occur more or less independently of the geological composition.

WPB Man to Address Prospectors Meet

Arrangements are now being completed for a prominent speaker from the U. S. War Production Board to address a meeting of the Ontario Prospectors Association in Toronto in the near future.

"The Increased Production of War Metals" will be the subject of his address. The War Production Board is keenly interested in securing increased production of needed strategic minerals and it is expected that much new information will be made available to the prospector through the address.

Date of the meeting will be announced shortly.

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Annual Meetings

1942: Company Place
Aug. 26—B. C. Packers Ltd. .... Vancouver
Aug. 28—Gold Eagle Gold M.† .... Toronto
Sept. 3—Agnew-Surpass Shoe Brantford
Sept. 3—Comp. Italo-Arg. de Elec. Sociedad Anonima‡ .. San Jose
Sept. 10—United Securities• .... Montreal
Sept. 28—Paymaster Consol. S. Porcupine
Sept. 30—McColl-Front. Oil Co.* Montreal
√Annual and special. ‡Special. •Bondholders. *For preference and common shareholders.

Mining Dividends

	Rate	Aug. 24	Yield %
Anglo-Huronian	20c	2.00	..
Argus Interests	†4c	.25	..
Aunor Gold	16c	1.07	14.9
Bayonne	†1c	.03½	..
Beattie Gold	10c	.58	..
Berens River	9c	.65	..
Bralorne	80c+40c	5.85	*20.5
Broulan Porc.	12c	.37	..
Buffalo Ankerite	•30c	1.10	..
Bulolo Gold	$3	8.00	..
Can. Malartic	8c	.37	..
Cariboo Gold	16c	.80	17.7
Central Patricia	16c+2c	.75	*24
Chesterville	•15c	.46	..
Cochenour Willans	6c	.53	11.3
Coniagas	10c	.80	..
Coniaurum	‡10c	.54	..
Cons. Smelters	$1+$1.50	32.75	*7.6
Delnite	6c	.52	..
Dome Mines	$1.60	13.37	11.9
East Malartic	‡5c	.39	..
Francoeur Gold	•4c	.17	..
Goldale Mines	2c	.09	..
Gold Belt	2c	.12	..
Grandview	2c	.11	..
Gruil Wihksne	†.00½c	.01½	..
Hallnor	40c	1.90	21
Hard Rock	3c	.32	..
Hedley Mascot	8c	.17	..
Hollinger	65c	7.20	9
Howey Gold	2c	.14	..
Hudson Bay	$2	22.00	9.1
Inter. Nickel, com.	$2	29.75	6.7
Island Mountain	8c	.88	..
Jason	•4c	.11	..
Kerr-Addison	‡22c	3.68	..
Kerr Lake	•5c	.50	..
Kirkland Lake	8c	.45	..
Lamaque Gold	‡30+25c	3.60	..
Lake Shore	80c	7.75	10.3
Leitch	8c	.50	16
Little Long Lac	‡10c	.72	..
Macassa	32c+3c	1.90	*18.4
Madsen R. Lake	2c	.36	..
Malartic Gold	•10c	1.20	..
McGillivray Coal	1c	.10¼	..
McKenzie Red L.	12c	.54	22.2
Moneta	8c	.25	..
McIntyre-Porc.	$2.22+$1.11	38.50	*8.6
MacLeod-Cockshutt	10c	1.00	..
Negus	2½c	.35	..
Nipissing	15c	.85	..
Noranda	$4	44.00	9.1
North Empire	‡10c	1.00	..
O'Brien Gold	3c	.50	..
Pamour Porc.	•12c	.32	..
Pato Cons.	‡25c	2.10	..
Paymaster Cons.	2c	.15	..
Pend Oreille	•6c	.38	..
Perron Gold	16c	.80	20
Pioneer, B. C.	‡33c	1.17	..
Pickle Crow	30c	1.40	21.4
Placer Develop.	25c	5.00	..
Premier	8c	.42	19
Preston E. Dome	20c	1.43	14
Privateer Mines	12c+1c	.24⅛	..
Quebec Gold	•2c	.20	..
Reno Gold	20c	.04	..
San Antonio	14c+6c	1.44	*13.8
Sheep Creek	16c+4c	.75	*26.6
Sherritt Gordon	10c	.60	..
Sigma Mines	60c	4.50	..
Silbak Premier	16c	.60	..
Siscoe	‡5c	.33	..
Sturgeon River	2c	.07	..
Sudbury Basin	2½c	1.30	..
Sullivan Cons.	†6c	.52	..
Surf Inlet	•2c	.06	..
Sylvanite Gold	20c	1.30	15.3
Teck-Hughes	40c	1.50	27
Toburn	12c+2c	.67	*20.8
Upper Canada	‡5½	.63	..
Ventures	20c	3.50	..
Waite Amulet	40c	4.00	..
Wendigo	3c	.16	..
Wright Harg.	40c	2.10	19

•Paid in 1941. *Yield including bonus. †Initial. ‡Paid in 1942 to date.

Dividends Declared

	This payment	Date payable	Date of record
Agnew Surpass	40+20c	Sept. 1	Aug. 15
Do., pref.	$1.75	Oct. 1	Sept. 15
Aluminum, c.	$2	Sept. 5	Aug. 15
Do., pref.	†$1.50	Sept. 1	Aug. 8
Anglo-Can. Tel.	15c	Sept. 1	Aug. 15
Asbestos Corp.	20c	Sept. 30	Sept. 1
Do., extra	10c	Sept. 30	Sept. 1
Assoc. Brew.	25c	Sept. 30	Sept. 10
Do., pref.	$1.75	Oct. 1	Sept. 10
Aunor Gold	4c	Sept. 1	Aug. 15
Amer. Cyan, A, B	15c	Oct. 1	Sept. 12
Belding Cort.	$1	Oct. 1	Sept. 15
Do., pref.	$1.75	Oct. 1	Sept. 15
Berens River	3c	Sept. 25	Aug. 29
Barber Ellis	12½c	Sept. 15	Aug. 31
Bruck Silk	10c	Sept. 15	Aug. 29
Bk. of Montreal	$2	Sept. 1	July 31
Bk. Can. Nationale	$2	Sept. 1	Aug. 15
Bk. of N. Scotia	$3	Oct. 1	Sept. 15
Beattie Gold	3c	Sept. 9	Aug. 12
Bk. of Toronto	$2.50	Sept. 1	Aug. 15
Bathurst Power, A	25c	Sept. 1	Aug. 7
Borden Co.	†30c	Sept. 1	Aug. 15
Brazilian Tr., pfd.	$1.50	Oct. 1	Sept. 15
Brit. Amer. Oil	25c	Oct. 1	Sept. 10
Can. Fdy. & Forg.	37½c	Sept. 15	Sept. 1
Can. Cottons	$1	Oct. 1	Sept. 5
Do., pref.	$1.50	Oct. 1	Sept. 5
Can. Wire & C., A	$1	Sept. 15	Aug. 31
Do., B	50c	Sept. 15	Aug. 31
Do., pref.	$1.62½	Sept. 15	Aug. 31
Can. Packers	$1	Oct. 1	Sept. 15
Can. Perm. Mtge.	$2	Oct. 1	Sept. 15
Can. W. N. Gas, p.	$1.50	Sept. 1	Aug. 14
Confederation Life	$1.50	Sept. 30	Sept. 25
Do	$1.50	Dec. 31	Dec. 25
Can. Int. Inv. Tr. p.	50c	Sept. 1	Aug. 15
Can. & Dom. Sugar	•20c	Sept. 1	Aug. 15
Corr. Pap. Box pf.	$1.75	Sept. 1	Aug. 15
Can. For. Invest., pf.	•$2	Oct. 1	Aug. 15
Can. Vinegars	10c	Sep. 1	Aug. 15
Can. Bakeries, p.	$1.25	Sep. 1	Aug. 18
Can. Wire Box	37½c	Oct. 1	Sept. 15
Do., arrears	12½c	Oct. 1	Sept. 15
Can. Crushed Stone	10c	Sept. 15	Sept. 1
Can. Nor. Power	15	Oct. 26	Sept. 29
Do., pref.	$1.75	Oct. 15	Sept. 19
Coniaurum M.	3c	Sept. 9	Aug. 14
Can. Breweries, p.	85c	Oct. 1	Sept. 15
Command Oils	2c	Aug. 31	Aug. 8
Canada Dry	†15c	Sept. 22	Sept. 10
Candn. Oil, p	$2	Oct. 1	Sept. 19
Can. Indus. A, B	$1.50	Oct. 31	Sept. 30
Do., pref.	$1.75	Oct. 15	Sept. 30
Cap. W. Cloth pf.	38c	Sept. 1	Aug. 12
Can. Cement, pfd.	$1.25	Sept. 21	Aug. 31
Canada Cycle	30c	Sept. 30	Sept. 15
Do., pref.	$1.25	Sept. 30	Sept. 15
Dom. Textile	$1.25	Oct. 1	Sept. 5
Do., pref.	$1.75	Oct. 15	Sept. 15
deHavilland, pfd.	$1.75	Sept. 15	Aug. 31
Do., arrears	$1.75	Sept. 15	Aug. 31
Dominion Tar, pf.	$1.37½	Nov. 2	Oct. 13
Dome Mines	•40c	Oct. 20	Sept. 30
Dom. Ang. Inv., pf.	$1.25	Sept. 1	Aug. 15
Dom. Scot. Inv., pfd.	50c	Sept. 1	Aug. 20
Dom. Found., pf.	$1.50	Sept. 1	Aug. 20
Distillers Seag.	55½c	Sept. 15	Aug. 28
Do., pref.	†$1.25	Nov. 2	Oct. 15
Eastern Steel	25c	Sept. 1	Aug. 15
Eng. Electric A.	62c	Sept. 15	Aug. 31
Ford Motor A, B	25c	Sept. 19	Aug. 29
Gt. Lakes Pap. A B p.	25c	Oct. 1	Sep. 19
Granby Cons.	•†15c	Sept. 1	Aug. 14
Granby Elastic p.	60c	Aug. 1	July 15
Gatineau Pwr.	15c	Sep. 30	Sep. 1
Do., 5% pref.	$1.25	Oct. 1	Sep. 1
Do., 5½% pref.	$1.37	Oct. 1	Sep. 1
Hallnor Mines	10c	Sept. 1	Aug. 15
Hinde & Dauch	25c	Oct. 1	Sep. 15
Hollinger Cons.	5c	Sep. 9	Aug. 26
Honey Dew	50c	Oct. 1	Sept. 15
Ham. Un. Theat., p.	$1.25	Sep. 30	Sep. 15
Inter. Nickel, c.	†50c	Sept. 30	Aug. 31
Imp. Varnish	12½c	Sept. 1	Aug. 21
Do., pref.	37½	Sept. 1	Aug. 21
Kerr Addison	5c	Aug. 28	Aug. 11
Langley's pfd.	•50c	Sept. 11	Sept. 2
Do	•50c	Dec. 11	Dec. 2
Lake Shore M.	20c	Sept. 15	Sept. 1
Lamaque Gold	10c	Oct. 1	Sept. 10
Do., bonus	15c	Oct. 1	Sept. 10
Loblaw Groc., A B	25c	Sept. 1	Aug. 10
Loblaw Inc.	†25c	Sept. 1	Aug. 14
L. of Woods Mill.	30c	Sept. 1	Aug. 13
Do., pref.	$1.75	Sept. 1	Aug. 15
Landed Banking	$1	Oct. 1	Sept. 15
Laura Secord	20c	Sept. 1	Aug. 15
Louisiana Land, c.	†10c	Sept. 15	Sept. 1
MacKinnon Stl., p.	$1.25	Sep. 15	Aug. 31
Macassa Mines	8c	Sept. 15	Aug. 31
Maclaren P & P., c.	25c	Aug. 31	Aug. 15
Massey-Harris, p.	62½c	Sept. 15	Sept. 1
McKenzie Red L.	3c	Sept. 15	Aug. 31
Montreal Loan	31¼c	Sept. 15	Aug. 31
McIntyre Porc.	55½c	Sept. 1	Aug. 1
Montreal Cottons	$1	Sep. 15	Aug. 31
Do., pref.	$1.75	Sep. 15	Aug. 31
Nat. Grocers, pref.	37c	Oct. 1	Sept. 15
Northwest Util. p.	$1.50	Sept. 1	Aug. 23
Nat. Biscuit, c. pf.	†$1.75	Aug. 31	Aug. 14
Noranda Mines	$1	Sept. 15	Aug. 20
N. S. Light & P., p.	$1.50	Sept. 1	Aug. 15
Nan. Dun. Util., p.	81¼c	Sep. 1	Aug. 15
North Star Oil, p.	8¾c	Oct. 1	Sep. 1
Ottawa L. & Pr.	15c	Oct. 1	Aug. 28
Do., pref.	$1.25	Oct. 1	Aug. 26
Ogilvie Flour pf.	$1.75	Sept. 1	Aug. 19
Paton Mfg.	$1	Sep. 15	Aug. 31
Do., pref.	$1.75	Sep. 15	Aug. 31
Perron Gold	4c	Sept. 21	Aug. 29
Para Pictures pf.	†$1.50	Oct. 1	Sept. 11
Do., com.	†25c	Oct. 1	Sept. 18
Photo Engravers	50c	Sept. 1	Aug. 15
Pickle Crow G.	10c	Aug. 31	Aug. 15
Paymaster Cons.	•1c	Jan. 15 '43	Dec. 31
Preston E. Dome	5c	Oct. 15	Sept. 24
Proprietary M.	5c	Aug. 20	Aug. 15
Page Hersey	$1.25	Oct. 1	Sep. 15
Pioneer Gold	5c	Oct. 1	Aug. 21
Provincial Bank	$1.50	Sep 1	Aug. 15
Remington Rand, c.	†20c	Oct. 1	Sept. 10
Do., pfd.	†$1.12½	Oct. 1	Sept. 10
Royal Bank	$2	Sept. 1	July 31

Grain For Trade Debts Proposed by Retailers

From Our Own Correspondent

WINNIPEG.—Since it became evident that storage space for this year's grain crop was going to be scarce, a number of Western merchants have had ideas with respect to the collection of debts owed them by farmers. Why not, they have asked themselves, provide some storage space on their own premises, and invite farmers to deliver grain to them against their debts?

The Canadian Wheat Board has found it necessary to issue a warning to such merchants that any wheat which they might so acquire could not be sold to the Wheat Board, which is empowered to receive grain only from producers. A creditor may be a producer under the law, that is if he is entitled by law or by contract to a share of the grain produced on any farm. But such a definition does not include the general creditor.

Of course, as the Board has pointed out, there is nothing to prevent a farmer depositing with a creditor wheat which he subsequently intends to deliver to the Board. But in that case, provided title did not pass, the farmer himself would have to market the wheat, and would be entitled, so far as the Board is concerned, to the proceeds.

Question of Quotas

The difficulties in the case of coarse grains are not so great. A merchant might take delivery of oats and barley, in payment of a debt, and he would be entitled to the same price guarantee which applies to farmers. But for the present at least, he would be without any delivery permit, entitling him to deliver grain to an elevator under quota regulations. If and when the quota regulations are removed, that difficulty would vanish. Until then, however, the creditor could only dispose of coarse grains if the producer would allow delivery to be made in his name, and recorded in his delivery permit book. And in such a case the farmer might just as well sell on his own account.

When the Canadian Wheat Board first announced delivery quotas for the current season they were set uniformly at five bushels per acre for wheat, oats, barley and rye, with the difference that in the case of wheat the acreage in question is the "basic acreage," and in the case of other grains the acreage actually seeded. The basic acreage for wheat is, generally speaking, 65% of that seeded in 1940, and a farmer's right to deliver is not affected by the fact that he may have actually seeded more or less than the basic wheat acreage. Subsequently the Board found it practicable to increase quotas at a considerable number of points, in cases as high as ten bushels per acre. This is to take advantage of local space available, for the benefit of local producers. At points which have enlarged quotas, rail shipments of grain are forbidden at the present, in order to concentrate railway cars at those points which most require relief.

Ottawa Delays Consent On Ogoki Diversion

Meanwhile Ontario Faces Winter Power Shortage of 250,000 Horsepower, Necessitating Plans to Restrict Civilian Use

A year after applying to the federal deparament of public works for permission to divert the Ogoki River, the Ontario Hydro Electric Power Commission is still awaiting a definite answer.

Meanwhile work on the big project is going ahead in an atmosphere of uncertainty. Water from the Ogoki should be flowing into Lake Nipigon by this time next year—if the public works department assents.

This was prophesied in an address by Dr. T. H. Hogg speaking at Port Artrur this week.

Dr. Hogg pointed out that the diversion is provided for in the draft Canada-Ontario St. Lawrence agreement, drawn up at the time Canada and the United States were negotiating for the St. Lawrence power development and outlining Ontario's place in the picture.

Thus there is tacit agreement on the part of the government itself. The hitch rests with the public works department, which administers the Navigable Waters Protection Act.

Calls Delay Serious

"The delay in approving this project," said Dr. Hogg, "is rather serious because the United States agreed to Canada increasing its diversion at Niagara Falls to allow the commission to operate its three plants at maximum capacity before the Ogoki project was completed. Actually, about 4,000 cubic feet per second of this additional water flow is in consideration of the additional water to be added to the Great Lakes by the Ogoki diversion. The total additional diversion has already enabled our Niagara river plants to produce 2.5 million kilowatt hours per day for munitions production."

He mentioned that the Ogoki diversion would be vital when it became necessary to supply power for Steep Rock Mines Ltd., which is to develop a large body of high-grade hematite iron ore 115 miles west of Port Arthur.

Speaking before a district meeting of the Ontario Municipal Electric Association at Port Arthur, Dr. Hogg said by the end of the present year another 79,000 horsepower of capacity would be added in southern Ontario, through a new development on the Madawaska River and an arrangement with Maclaren-Quebec Power Co.

Shortage Coming

"But in spite of our foresight in planning to meet anticipated loads," he said, "the demand has overtaken the supply and during the coming winter we shall be faced with a power shortage in southern Ontario which, as far as we can see now, will amount to 250,000 horsepower.

"To meet this shortage it is imperative that some restrictive measures be put into effect whereby certain non-essential uses of electricity will be curtailed to ensure that essential war industries will not suffer through lack of supply. . . It is vital that there shall be no failure in the supply of power to munition plants, shipbuilding yards, tank and gun factories, military training camps, flying schools, and scores of other activities which are engaged day and night in essential war work."

Dr. Hogg said the federal power controller, H. J. Symington, is "establishing an equitable system of power regulation which will be applied so that plants engaged in war work will be accorded preference to those engaged in civilian production."

Any plant manufacturing airplanes, tanks, guns or ammunition would be given complete co-operation in expanding its facilities, while plants manufacturing consumer goods would be denied power for expansion, and might be called on to curtail present consumption.

It was likely that restrictions would soon be applied to exterior and interior lighting, show window and showcase lighting, lighting for advertising purposes, floodlighting for amusements and sports and so forth.

Dr. Hogg said the restrictions would be applied first to the power shortage areas—in the case of Ontario, the territory served by the Niagara system, the eastern Ontario system and the Georgian Bay system.

"In addition to such restrictions as will be imposed by the Dominion power controller," stated Dr. Hogg, "the commission, through various publicity media, is commencing an educational programme asking domestic and commercial consumers . . . to co-operate by voluntarily conserving the use of electricity in their homes."

Atlas Steels Ltd. has taken over the large office building and warehouse formerly occupied by the Westinghouse Neon Co. on Main St. East, Hamilton. Atlas will use this as their Hamilton branch and warehouse.

Commodities

	Latest week	Previous week	Same week last yr.
Cattle	$9.93	$9.92	$8.72
Hogs	16.00	16.38	14.60
Copper, lb.	*.12	.12	.12
Cotton, lb.	.1843	.1941	.17
Sugar, raw, lb.	*.0374	.0374	.0370
Wheat, Man. (bu.)	.89	.86⅞	.72⅛
Coffee, lb.	*.09⅜	.09⅜	.09⅜
Hides	*.15½	.15½	.15
Weekly Indices			
U. S. Labor	98.9	98.6	88.6
Wood, Gundy	77.6	77.7	74.4
Dow Jones (fut.)	84.36	84.17	70.04
Fishers	107.2	107.2	97.0
Monthly Indices			
Canada (D.B.S.):			
Retail (July)†	117.9	116.7	111.9
W'sale (July)	96.1	95.8	91.3
U. S. (May)	98.8	98.7	84.9
Gt. Brit. (May)	160.7	159.6	151.3

Note:—The base of indices is that 1926 equals 100. †Base 1935-39 equals 100. The British index is Board of Trade converted to 1930 base.

Base of price quotations is as follows: Cattle — Steers, good, over 1,050 lb., top price, Toronto. Copper-electrolytic, New York. No. 7 coffee, Rio. Sugar—96 degrees centrifugal, c/f New York. Wheat—No. 1 Man. North., Ft. W.-Pt. A. basis.

*Ceiling prices fixed by the office of Price Administration.

Dividends Declared (Cont'd)

Regent Knit., c.	25c	Sept. 15	Aug. 31
Regent Knitting pfd	‡40c	Sept. 1	Aug. 15
Rolland Paper pf.	$1.50	Sept. 1	Aug. 15
Reliance Gr. pf.	$1.62½	Sept. 15	Aug. 31
Russell Indust.	20c	Sep. 30	Sep. 15
Do., pref.	$1.75	Sep. 30	Sep. 15
Stand. Fuel, p.	$1	Oct. 1	Sep. 15
Sherbrooke Trust	$1.50	Aug. 1	July 15
Stedman Bros.	15+20c	Oct. 1	Sept. 19
Do., pref.	75c	Oct. 1	Sept. 19
Siscoe Gold	1½c	Sept. 15	Aug. 12
Stuart Oil, pfd.	20c	Sept. 1	Aug. 15
Do., participat.	25c	Sept. 1	Aug. 15
Sylvanite Gold	5c	Sept. 30	Aug. 14
Sunset Oils	1½c	Sept. 15	Sept. 1
So. Amer. Gold	†10c	Sep. 14	Aug. 29
Howard Smith, p.	$1.50	Oct. 15	Sept. 20
Teck Hughes	10c	Oct. 1	Sept. 10
Toronto Elev., p.	62½c	Sept. 5	Aug. 25
United Fuel, pf. A	75c	Oct. 1	Sept. 19
Un. Grain Growers, A	$1	Sept. 15	July 31
Do., B	25c	Sept. 15	July 31
Upper Can. Mines	2½c	Aug. 31	Aug. 15
Ventures	•5c	Sept. 25	Aug. 17
H. Walker-G. & W., c.	$1	Sep. 15	Aug. 21
Do., pfd.	25c	Sep. 15	Aug. 21
Waite Amulet	10c	Sept. 10	Aug. 18
West. Can. Hyd., p.	20c	Sep. 1	Aug. 20
Weston, George, c.	20c	Oct. 1	Sep. 12
Wright-Hargreaves	10c	Oct. 1	Aug. 26
Wilsil	25c	Oct. 1	Sept. 15
Do.	25c	Jan. 2	Dec. 15
Willson Stat. pf.	$1.25	Oct. 15	Sept. 30

†Payable in U. S. funds.
•Subject to approval of Foreign Exchange Control Board.
‡Also 40c payable Dec. 1

Dividends Deferred
Union Gas .... Sept. 15, 1942

Permit Plan Bars Grain Export

See Trade With U. S. Hampered by New Rulings

From Our Own Correspondent

WINNIPEG.—Ottawa has announced that export permits for oats and barley grown in western Canada may now be freely issued, but that such permits must be employed before Nov. 30. Although the grain trade is pleased that there has been some relaxation of the prohibition against export formerly in effect, general opinion is that the concession does not go far enough, and that the requirement for permits should be completely abolished for the current crop year.

Western Canada will have to find a market in the United States for a large quantity, certainly more than 50 million bushels and possibly 200 million bushels of feed grains, if there is to be any satisfactory disposal of this year's surplus production. Any impediment to the southward flow of such grain is felt to be definitely against the interests of this country, and a system of export permits is considered to be such an impediment, even during a period when permits are freely granted.

Satisfactory trade will require commitments to be made a considerable time in advance, and prospective buyers cannot be expected to make commitments to purchase if they are left in doubt as to being able to ship grain out of the country when they are ready to do so.

The export permit system was introduced at a time when it was feared that there would not be enough feed grains in Canada to take care of needs during the crop year which has just closed. Some objections were taken to it when introduced, on the ground that more wheat might be fed in Canada, and that such grains as could find a market outside of Canada should be exported.

New crop production has banished fears of any feed grain shortage for a considerable time to come. A new reason, however, for some control of exports has appeared. It is the free freight policy under which the freight cost is assumed by the government on feed grains shipped eastward from the head of the lakes and westward from Calgary to other points in Canada. That implies a need, which actually exists, for prairie grown feed grains in Ontario, Quebec, the Maritime Provinces and British Columbia, and the inference is that farmers in those provinces should not be allowed to export such grains and replace them with grain moved in at government expense. There is also, perhaps, a theoretical danger that grain on which the government has paid freight might be resold for export, but the conditions under which freight is paid are probably regulated with sufficient care to make such procedure difficult.

Regional Problem

The western dealer is not disposed to make out a case for the eastern farmer who might want to export his oats or barley instead of selling them to a neighboring farmer, although such a case might be made. But the westerner considers that if export of grains grown in the east or British Columbia has to be prohibited there are other methods available than licensing provisions applied to western grain. And protection of the government's interest, and the saving of some freight charges on grain that need not have been shipped under the free freight policy, will be dearly bought if at the expense of hampering a possible trade with the United States.

At the moment a prospective user of Canadian feed grains, say a large feed manufacturing firm in the eastern states, might buy October oats or barley, and feel sure of a month in which to get them forward after securing delivery in October. But if he finds he is not going to need them until a couple of months later, he cannot be sure of the position he will be in after Nov. 30. And as long as the uncertainty lasts, he is likely to avoid entirely any purchases of December oats.

WPTB Adjusts Flour Prices

Arranges to Provide Millers With Wheat at Old Prices

From Our Own Correspondent

MONTREAL.—In order to maintain the ceiling price on flour and bread, the Wartime Prices and Trade Board has arranged to provide the millers with western wheat at a price appropriate to flour ceiling prices.

Millers will continue to buy their wheat requirements in the open market at the higher price levels now prevailing, and will be eligible for drawback representing the difference between the average price estimated to have been paid and the appropriate price on wheat ground for domestic use. The drawback will not be paid on flour exported from Canada.

Price ceilings on flour are the highest flour prices prevailing during the basic period, Sept. 15 to Oct. 11, 1941. The price of wheat appropriate to these flour ceilings has been determined tentatively by the W.P.T.B. as 77⅜ cents per bushel for No. 1 Northern in store at Fort William, subject to an adjustment after investigation of milling costs by the Board.

The drawback will be paid for flour delivered on or after Aug. 1, 1942, pursuant to sales contracts made on and after that date. Unfilled contracts as at July 31 will not be eligible for drawback.

Treasury Absorbs Cost

The cost of the drawback is being absorbed by the Treasury and it will be administered for the Treasury by the Canadian Wheat Board as an arrangement separate from their other undertakings.

The price ceiling on flour was established last year when the minimum price for wheat was 70 cents a bushel. By legislation approved by the House of Commons earlier this year, the payment to western farmers was increased to 90 cents a bushel.

Without special arrangements for their relief, it would have been impossible for millers and other users of wheat to maintain their prices under the price ceiling and pay the additional 20 cents a bushel for wheat.

Eastview Has New Debt Plan

Plan to bring the Town of Eastview, Ont., out of default is being proposed for debenture holders' consideration. Under the terms of the proposed plan all outstanding debentures are to be refunded by a new issue of 4½% debentures maturing from one to 40 years. All bonds held by the town are to be cancelled.

Arrears of interest are to be calculated at the contract rate to maturity and thereafter at 4½% to Sept. 30, 1942. The resultant claim would be settled under the plan by a cash payment of 30%.

About a year ago a temporary five-year plan to deal with the Eastview debt was proppsed but was never put into operation.

Wheat Prices

Winnipeg Grain Futures

Week to Aug. 24, 1942

Crop year from Aug. 1, 1942 High	Low		High for week	Low for week	Close Aug. 24
		Wheat			
.90	.90	Oct.	.90	.90	.90
		Oats			
.46⅝	.45¾	Oct.	.46⅝	.46¼	.46⅝
.46⅞	.45⅝	Dec.	.45⅝	.45½	.45⅝
		Barley			
.61¼	.60¼	Oct.	.60⅝	.60¼	.60¼
.61	.60¼	Dec.	.60⅝	.60¼	.60⅝
		Rye			
.58	.53½	Oct.	.54⅝	.53½	.54⅝
.58⅝	.54¾	Dec.	.55⅝	.54¾	.55⅛

Cash Quotations

	For Week Aug. 24 High	Low	Prev. Week High	Low
Wheat:				
1 Nor.	.89	.88⅞	.88⅞	.88¾
2 Nor.	.86⅞	.85¾	.85¾	.85⅝
3 Nor.	.83⅞	.83½	.83¾	.82⅝
4 Nor.	.82	.81¾	.81⅝	.80
5 Wheat	.79	.79	.79	.77
6 Wheat	.76	.76	.76	.72½
Feed	.73	.73	.73	.70
Oats:				
2 C. W.	.46¼	.45⅛	.45¼	.45
3 C. W.	.45¼	.44⅛	.45¼	.45
Barley:				
1 Feed	.56¾	.56	.57⅝	.56⅛
2 Feed	.55¼	.54¾	.55⅝	.55¼
Rye:				
2 C. W.	.53½	.52⅝	.53⅝	.52⅞

Saskatchewan Election Plans Take Shape

C. C. F. Woos Wheat Pool Vote While Liberals and Conservatives Keep Powder Dry — Date of Election Still Uncertain

From Our Own Correspondent

REGINA.—An election is promised Saskatchewan but when is not specified. It might come within two months or it may not come until next year.

In the meantime, there are three political parties with three points of view regarding the election. The government, under Liberal Premier W. J. Patterson, is adopting a "wait and see if there is an election" attitude. The C.C.F. opposition party, numbering eleven seats, is anxious to discover whether it has gained strength in the country, and the Conservative party thinks an election in wartime is a waste of money. There are also two Social Credit members and two Unity candidates.

The C.C.F. recently chose Rev. T. C. Douglas, M.P., Weyburn, as its leader in the province.

C.C.F. And Wheat Pool

The majority of the farmers, or, if not an actual majority, close to it, are members of the Saskatchewan Wheat Pool and it has been noticeable recently that the C.C.F. has championed the Wheat Pool specifically and the farmers generally in whatever the Pool has advocated. For instance, when the Pool was clamoring for $1.00 initial payment wheat, C.C.F. climbed on the bandwagon. As a result, its support increased, but, in view of what has transpired since, that support is not now so wholehearted.

Wheatpoolers know they have more to gain from a government in power than from any of the "outs." Unless there is a clear-cut opposition toward the present provincial government, it can be safely suggested that the Pool will mind its own business politically and let the C.C.F. do its own ballyhoo. While the Wheat Pool is progressive as an organization, it is not so radical as to run against a government that has generally supported its efforts during the last several years.

Out For Farmers

It is felt that the C.C.F. has recognized its weakness in the class of candidate it has supported. As a result, overtures are expected to be made to various individuals with good backing, such as Wheat Pool connections, in an effort to align a stronger farm vote. The Conservatives and Liberals will be doing the same thing, but the C.C.F. is reaching out into territory that is in most respects new to the organization.

The Conservative leader J. G. Diefenbaker, M.P., Lake Centre, dropped the leadership mantle in favor of H. E. Keown, K.C., of Melfort. The change may or may not mean anything, but with possible saw-offs taking place the Conservatives might get representation in the house.

It is still too early to analyze campaign platforms, but, based on the national platform as announced at the national C.C.F. convention in Toronto, there will be an effort to tie in with the co-operative movement. At a Melfort nomination meeting, the question was asked what would be the C.C.F. stand on the liquor question and the reply was that if the C.C.F. was put into power it would take over the liquor interests, turn the profit back to the people and, by cutting down production, would wean the drinking public away from consumption. So far, the Conservatives and Liberals are keeping their powder dry.

Canada Wire Net Is Down 25%

Business Volume Gains in Half Year But Future Trend Uncertain

Canada Wire & Cable Co. reports volume of business in the six months ended June 30, 1942, in excess of that of the same period a year ago, according to H. Horsfall, president. Trend of future business and probable profits are difficult to forecast due to increasing restrictions on use of metals and other raw materials and new taxes.

In spite of the larger volume of business done, net profits for the first half of this year are equivalent to only $304,919 against $418,475 for the corresponding half of 1941.

The company has declared regular dividends of $1.62½ on its preferred stock, $1 a share on the class A and 50 cents a share on the class B. The latter dividend is termed an interim payment.

Profit and Loss Account
Six Months Ended June 30

	1942 $	1941 $
Operating profit	1,536,182	1,551,611
Less: Inc. & E.P. taxes	1,036,000	952,000
Deprec., etc.	195,263	181,136
Net profit	304,919	418,475

DIVIDEND NOTICES

Belding-Corticelli Limited

Notice of Preferred Stock Dividend No. 111

A dividend of one and three-quarters per cent (1¾%) has been declared on the Preferred Stock of this Company, for quarter ending 31st August, 1942.

Notice of Common Stock Dividend No. 66

A dividend of one per cent (1%) has been declared on the Common Stock of this Company, for quarter ending 31st August, 1942.

The above dividends are payable on the 1st day of October, 1942, to Shareholders of record at the close of business the 15th day of September, 1942.

BY ORDER OF THE BOARD,
D. F. POLLOCK,
Secretary.

MacKinnon Steel Corporation Limited

DIVIDEND NOTICE

NOTICE IS HEREBY given that a dividend of one and one quarter per cent (1¼%) has been declared on the 7% Cumulative Sinking Fund Redeemable Preferred stock of MacKinnon Steel Corporation Limited, payable September 15th, 1942, to shareholders of record August 31st, 1942.

This is a payment on account of arrears of preferred dividend.

By Order of the Board of Directors,
J. G. SCORER,
Secretary.
Montreal, August 21st, 1942.

Associated Breweries of Canada Limited

DIVIDEND NOTICE

NOTICE IS HEREBY GIVEN THAT a Quarterly Dividend (No. 56) of 1¾% upon the outstanding Preferred shares of the Company has been declared, payable, subject to the approval of the Foreign Exchange Control Board, on the First day of October, 1942, to Shareholders of record at the close of business on the Tenth day of September, 1942.

NOTICE IS ALSO GIVEN that a Quarterly Dividend (No. 53) of twenty-five cents per share on the No Par Value Common shares of the Company, issued and outstanding, has been declared, payable, subject to the approval of the Foreign Exchange Control Board, on the Thirtieth day of September, 1942, to Shareholders of record at the close of business on the Tenth day of September, 1942.

By order of the Board.
I. N. WILSON,
Treasurer.
Calgary, Alberta,
August 24th, 1942.

Since 1857
James Richardson & Sons
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Grain Merchants
Shippers and Exporters
HEAD OFFICE
WINNIPEG
Branches Throughout Canada

— RECLEANED WESTERN —
... OATS ...
AND OTHER GRAINS
BULK or SACKED
All Grain Selected from Our Elevators in the Finest Growing Districts of Western Canada
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For Quotations Write or Wire
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OPERATING TERMINAL ELEVATORS - FORT WILLIAM - PORT ARTHUR - VANCOUVER
423 COUNTRY ELEVATORS THROUGHOUT THE WEST
101 COAL SHEDS
Our Service and Facilities Guarantee Satisfaction

DIVIDEND NOTICES

Gatineau Power Company

Notice of Dividend on 5% Cumulative Preferred, 5½% Cumulative Preferred and Common Shares

Montreal, Canada
August 19, 1942.

The Board of Directors has declared a quarterly dividend of $1.25 a share on the 5% Cumulative Preferred Shares and $1.37 a share on the 5½% Cumulative Preferred Shares of the Company payable October 1, 1942, to shareholders of said classes of record at the close of business on September 1, 1942; also a quarterly dividend of Fifteen cents ($.15) a share on the Common Shares of this Company outstanding at the close of business on September 1, 1942, payable on September 30, 1942, to shareholders of said class of record at the close of business on September 1, 1942.

Cheques in payment will be mailed. Stock transfer books will not close.

J. R. BINKS,
Secretary.

Ottawa Light Heat and Power Company, Limited

The following dividends are payable 1st October, 1942, to Shareholders of record 28th August, 1942.

Preferred Stock: 1¼% (being at the rate of 5% per annum.)

Common Stock: Fifteen Cents (15 cts.) per share on the No Par Value Shares.

The transfer books will not be closed.

By Order of the Board.
F. W. FEE,
Secretary.
OTTAWA, 19th August, 1942.

Hollinger Consolidated Gold Mines Limited

Dividend Number 361

A regular dividend of 1% has been declared by the Directors on the Capital Stock of the Company, payable on the 9th day of September, 1942, to shareholders of record at the close of business on the 26th day of August, 1942.

DATED the 19th day of August, 1942.

P. C. FINLAY,
Secretary.

The Montreal Cottons Limited

NOTICE IS HEREBY GIVEN THAT A DIVIDEND OF ONE PER CENT (1%) has been declared upon the Common Stock of the Company, and cheques will be mailed on the fifteenth day of September next, to shareholders of record at the close of business on the 31st day of August, 1942.

By Order of the Board,
CHAS. GURNHAM,
Secretary-Treasurer.
Valleyfield, August 19th, 1942.

The Montreal Cottons Limited

NOTICE IS HEREBY GIVEN THAT A QUARTERLY DIVIDEND OF ONE AND THREE QUARTERS PER CENT (1¾%), being at the rate of Seven per cent (7%) per annum, has been declared upon the preferred stock of the Company, and cheques will be mailed on the fifteenth day of September next, to shareholders of record at the close of business on the 31st day of August, 1942.

By Order of the Board,
CHAS. GURNHAM,
Secretary-Treasurer.
Valleyfield, August 19th, 1942.

DIVIDEND NOTICES

Dominion Textile Co.

Limited

Common Stock Dividend

A DIVIDEND of One Dollar and Twenty-five cents ($1.25) per share, has been declared on the Common Stock of DOMINION TEXTILE COMPANY, Limited, for the quarter ending 30th September, 1942, payable 1st October, 1942, to shareholders of record 5th September, 1942.

By order of the Board.
L. P. WEBSTER,
Secretary
Montreal, August 19th, 1942.

Dominion Textile Co.

Limited

Notice of Preferred Stock Dividend

A DIVIDEND of One and Three Quarters per cent. (1¾%) has been declared on the Preferred Stock of DOMINION TEXTILE COMPANY, Limited, for the quarter ending 30th September, 1942, payable 15th October, 1942, to shareholders of record 15th September, 1942.

By order of the Board.
L. P. WEBSTER,
Secretary.
Montreal, August 19th, 1942.

Preston East Dome Mines, Limited

(No Personal Liability)

DIVIDEND NO. 12

NOTICE is hereby given that the regular quarterly dividend of five cents per share has been declared on the issued Capital Stock of the Company, payable in Canadian funds, October 15th, 1942, to shareholders of record at the close of business on the 24th day of September, 1942.

By Order of the Board.
L. I. HALL,
Secretary.
Toronto, August 18th, 1942.

CANADA PERMANENT MORTGAGE CORPORATION

Notice is hereby given that a Dividend of TWO PER CENT. on the paid-up Capital Stock of the Corporation has been declared for the current quarter, and that the same will be payable

THURSDAY, THE FIRST DAY OF OCTOBER

next, to Shareholders of record at the close of business on the Fifteenth day of September 1942.

By order of the Board.
Walter F. Watkins,
Secretary.
Toronto, August 19th, 1942.

THE WEEK'S QUOTATIONS

Toronto and Montreal Exchanges

The following table is confined to official prices for listed stocks, including curb market quotations. Where no transaction is recorded, bid and asked prices are given. For unlisted stocks, quotations by unlisted dealers are published. The Financial Post cannot accept any responsibility for such quotations.

WEEK ENDING AUGUST 24

A

Range 1942 High	Low	Div R'te $	Aug22 Y'ld %		Sales	Last Aug. 17	Week end. Aug. 24 H	L	Cl'se
.75	.40	.	...	Abitibi	130	.55	.55	.50	.50
7	4	.	...	Do. pref. 6%	50	5	5	4½	4½
25	13	.	...	Do. pref. 7%	25	13½	14	14	14
3	3	.	...	Acme Glove	....	(3 bid 3½ asked)			
60	50	6.50	13	Do. pref.	....	(— bid 51 asked)			
13	11	80+20c	9	Agnew Surp.	....	(10½ bid 12 asked)			
110	106½	7	6.6	Do. pref.	....	(106½ bid — asked)			
.90	.75	.	...	Alta. Pac. Gr.	....	(— bid .75 asked)			
28½	21½	.	...	Do. pref.	180	25½	26½	25½	25½
9½	8	.	...	Algoma Steel	350	8½	8½	8½	8½
84	82	5	6.1	Do. pref.	....	(82 bid 84 asked)			
109	85½	8+2	11.6	Aluminium	275	85½	87	85½	87
118	111½	6	5.3	Do. pref.	100	118	114	111½	111½
7½	6	50c	...	Amal. Electric	....	(6 bid — asked)			
†37	37	60c	1.6	Amer. Cyn. B.	....	(33 bid — asked)			
42	40	2.75	6.5	Ang. Can. Tel p	....	(42 bid 45 asked)			
19	16	80+40c	7	Asbestos	226	16	17½	17	17
18¼	13½	1.75	12.2	Assoc. Brew.	210	14	14½	14	14½
112	109½	7	6.2	Do. pref.	5	111	112	112	112
†1	1	.	...	Assoc. T. & T.A.	....	(— bid — asked)			
‡24	24	96c	...	Do. pref.	....	(— bid 23 asked)			
102½	102	5.50	5.4	Ault & Wiborg	....	(102 bid — asked)			

B

Range 1942 High	Low	Div R'te $	Aug22 Y'ld %		Sales	Last Aug. 17	Week end. Aug. 24 H	L	Cl'se
150	127	6	4.7	Bk. Can. Nat.	14	128	128	127	127
189	130	6	4.6	Bk. Montreal	216	135	135	130	130
275	235	10	4.2	Bk. N. Scotia	....	(— bid 230 asked)			
255	218	10	4.5	Bk. Toronto	47	225	220	218	218
8¼	8¼	35c	...	Barber Ellis	....	(6 bid — asked)			
•5	4¼	.	...	Barcelona	....	(— bid — asked)			
1.25	.50	.	...	Barker's Bread	....	(.50 bid 1.00 asked)			
18	12	.	...	Do. pref.	....	(15 bid 16 asked)			
14¼	11	1+25c	11	Bathurst Pr.	210	11½	11	11	11
2.25	1.00	.	...	Do. (B)	....	(1.00 bid — asked)			
6	3½	80c	...	Beath & Sons	....	(5 bid 7 asked)			
8	6¼	.	...	Beatty Bros.	....	(6½ bid 8 asked)			
110	102	6	5.4	Do. pref.	10	110	110	110	110
100	76	7	7	Do. 2nd pref.	....	(100 bid 110 asked)			
9¼	9¼	.	...	Beauharnois	82	9¼	9¼	9¼	9¼
81	81	4+2	7.4	Belding Cort.	....	(80 bid 86 asked)			
124	115	7	6.1	Do. pref.	....	(— bid — asked)			
150¼	123	8	6.3	Bell Telephone	560	128¼	128¼	126	127
7	6¼	30+10c	...	Bertram & Sons	....	(6¾ bid — asked)			
7¼	6	60c	10	Biltmore Hats	....	(6 bid 6½ asked)			
3	2¼	.	...	Blue Ribbon	....	(2¼ bid 3 asked)			
32¼	25	2.50	10	Do. pref.	10	25	25	25	25
10¾	10¾	60c	...	Blue Top Br. A.	....	(10 bid — asked)			
10¼	8	.	...	Do. "B"	....	(9 bid 10 asked)			
3¼	3	.	...	Brand. Hender.	....	(3 bid — asked)			
21	20¼	1.30	6.2	Brant. Cord. pf.	....	(21¼ bid — asked)			
11¾	6	40c	...	Brazilian Tr.	6575	11¼	11¼	10	10½
5¼	3¾	50+10c	...	Brew. & Distil.	115	4¼	4¼	4¼	4¼
†6¼	6¼	.	...	Bright, T. G.	....	(6¼ bid — asked)			
†90	90	6	6.7	Do. pref.	....	(90 bid — asked)			
18	13	1	6.5	Brit. Amer. Oil	762	15¼	15¾	15	15¼
16	12	1.50	...	B. C. Packers	26	14	14	13½	14
22	17	2	9.5	B. C. Power A.	280	21	21	20¼	21
1.25	.75	.	...	Do. (B)	56	1.00	1.00	.75	1.00
6	4¼	30c	...	Bruck S. Mills	....	(5 bid — asked)			
14	11¼	70+10c	6.7	Building Prod.	608	12	12	11¼	12
8¼	7¼	60c	7.5	Burlington Stl.	....	(7¾ bid 8 asked)			

Government Bonds

(Supplied by Investment Dealers' Assoc. of Canada)

Aug. 26, 1942

%	Due	Bid	Ask.	Approx. Yld.
Dominion of Canada Bonds				
3	Oct. '42	100	100¼	...
2½	June '43	100¾	101¼	.99
5	Oct. '43	103¾	104¼	1.31
3	June '44	100¾	101¼	1.30
1½	Sept. '44	99¾	100¼	1.38
2½	Jan. '44	100¼	100¾‡	b.75
4½	Oct. '44	105¾	106¼	1.65
2½	Nov. '44	101¾	102¼	1.58
a2½	Aug. '45	100¼	‡100¾	b1.80
4	Oct. '45	102¼	103	b1.49
2	Mar. '45	100¾	101¼	1.95
2	Dec. '46	99¾	99¾	2.03
4½	Feb. '46	108¼	108¾	1.94
2½	Mar. '48	99¾	99¾	2.27
3½	June '49	102¾	103¼	b2.38
3½	Oct. '49	102¼	103	b2.12
3½	Nov. '51	102¼	102¾	b2.79
3½	Feb. '52	102¼	102¾	♦2.83
a5	May '52	101¼	102	b
4	Oct. '52	105¾	106¼	b2.74
a3	June '51	100¾	100¾	2.98
3	Oct. '52	99¼	100¼	2.98
3	June '55	99½	100	3.00
4½	Nov. '56	106¾	107¼	b2.71
a3	Mar. '54	99¾	100¾	3.03
4½	Nov. '57	107¼	108	b2.85
3	June '58	99¼	100	3.00
4½	Nov. '58	108¼	108¾	b2.99
4½	Nov. '59	109½	109¾	b3.02
a4	Oct. '60	106¼	‡107¼	b .95
a3½	Jan. '61	101	101¾‡	3.09
3½	June '66	101¼	101¾	b3.10
a3e	Jan. '67	97	98‡	3.12
a3e	Nov. '68	97	98‡	3.12
†3	Perpet'l.	94	95	3.16
Dominion Guarant'd Bonds				
Can. Nat'l. Railways:				
2	Feb. '43	100¼	100¾	.99
2½	Jan. '46	100¾	101¼	1.89
3	May '44	102¼	102¾	1.45
3	Dec. '50	100	100¼	2.85
3	Jan. '59	99¼	99¾	3.02
•4½	Sept. '51	118	119	2.19
•4½	Feb. '56	119¼	120¼	2.67
4½	July '57	119¾	120¾	2.80
3	Feb. '53	99¼	100	3.00
4½	June '55	120¼	121¼	2.77
5	Feb. '54	118	119	3.03
•5e	July '69	118¼	119¼	...
•5e	Oct. '69	122¼	123¼	b2.08
•5e	Feb. '70	122¼	123¼	b2.20
Can. Nat. W. Ind. S. S.:				
•5	Mar. '55	122¼	123¼	2.76
Grand Trunk Pacific Rly.:				
3	Jan. '62	101¼	103¼	2.77
Provincial Gov't. Bonds				
New Brunswick:				
3	Oct. '51	94½	96½	3.45
3½	Aug. '49	96	98	3.57
3½	June '56	96	98	3.68
c4	Nov. '47	108	110	b.87
c4½	Apr. '61	108¼	110¼	3.72
c5	Jan. '60	110	112	4.03
Nova Scotia:				
3	Jan. '52	98	99¼	3.08
3½	June '56	99¼	100¼	3.20
3½	Nov. '50	101¼	102¼	3.15
c4½	Sept. '52	113¼	114¼	b1.53
c4½	Nov. '60	114¼	116¼	3.28
c5	Mar. '60	119¼	121¼	3.37
Ontario:				
2½	May '45	100¼	101¼	2.03
3	Apr. '43	100¼	101¼	b2.64
3	Nov. '50	99½	100¼	b2.90
3½	Nov. '51	100¼	101¼	b3.02
3½	May '55	100¾	101¾	b3.04
•4	June '62	114	116	2.93
4½	June '50	109¼	110¼	3.02
•4½	Jan. '62	119	121	3.06
5	Oct. '48	110	111	3.05
•5	Dec. '60	124¼	126¼	3.07
5½	July '46	109	110	2.83
Ont. Hydro Commission:				
3	Aug. '48	100	101	b2.74
3½	Feb. '53	100¼	101¼	b3.02
3½	Apr. '47	102¼	104	2.63
Prince Edward Island:				
4	Mar. '54	102	104	3.57
Quebec:				
3	Nov. '47	98¾	99¾	3.05
3½	Mar. '48	99¼	100¼	3.20
3½	Mar. '50	99	10	3.50
4	Nov. '52	102¼	103¼	b3.50
3½	Feb. '55	100¼	101¼	b3.57
4½	Aug. '58	105¼	107¼	3.62
4½	Jan. '63	110	112	3.66
Alberta:				
4½	Oct. '51	78	..	d
4½	Oct. '56	74	76	d
4	Dec. '54	72	74	d
•5	Oct. '59	73½	78½	d
c5½	Apr. '52	78½	78½	d
6	Mar. '47	77	79	d
British Columbia:				
4	Dec. '57	103	...	...
•4½	Jan. '51	110	111¼	2.95
c4½	Oct. '53	110	111¼	3.25
c5	Apr. '54	114½	116½	3.32
5½	Feb. '45	104¼	105¼	3.27
6	Feb. '47	109½	111¼	3.23
Manitoba:				
c4	Dec. '57	100	102	3.83
c4½	Dec. '56	104	106	3.93
•5	Dec. '59	107	109	4.25
5½	Oct. '55	109½	111¼	4.22
6	Apr. '47	107	109	2.87
Saskatchewan:				
4	Sept. '54	81	83½	5.95
4	Nov. '60	80½	82½	5.52
c4½	Oct. '51	90	92	5.63
c4½	Mar. '60	87½	89½	5.43
5	Aug. '58	89	91	5.87
5½	Oct. '52	93½	96	6.02
6	Mar. '52	97	99	6.13

•–Payable Can., N.Y. and £. b–Calculated to call date giving lowest possible yield. c–Payable Can. & N.Y. a–Payable N.Y. †–Callable on or after Sept. 15, 1966. d–Traded flat. Interest being paid at 50% of coupon rate, minimum rate 2%. e–Callable at a premium. ‡–N.Y. funds. ♦–Calculated to 1959 average maturity. ■–Callable on or after earliest maturity shown and payable at maturity at 101.

Winnipeg Stocks

(Transactions from Aug. 17 to Aug. 22)

	Sales	High for period	Low for period	Close Aug. 22
Callinan Flin Flon	1,000	.01	.01	.01
Great Falls M. & S.	7,500	.08	.04½	.06
Western Breweries	150	2.00	2.00	2.00

Stocks Not Traded In During Week*

	Bid	Asked		Bid	Asked
Beav. Lumber, c	2½	5	Home Invest.	27½	..
Beav. Lumber, p	100	..	Nor. C. Mtg. un.	5½	..
Can. Indemnity	150	..	Nor. Mtg. pt. pd.	.75	..
Cres. Cream., p.	10	15	Nor. Trusts	6	..
Dom. Envel., c.	..	7½	Traders Bldg.	44	..
Dom. Envel., p.	..	90	Unit. Grain	10	10½
Fed. Grain, c.	..	1¼	West. Grain, p.	..	7
Grouped Inc.	..	4½			

*Stocks more active on other exchanges not included.

Volume of Stock Sales

	Montreal Markets Indust.	Mines	Toronto Markets Ind. & Mines	Vancouver Markets Ind. & Mines
Aug. 25	5,600	3,100	70,000	8,550
Aug. 24	2,800	1,300	54,000	2,150
Aug. 22	2,100	1,100	52,000	7,080
Aug. 21	4,300	2,200	107,000	10,082
Aug. 20	5,900	4,600	110,000	12,312
Aug. 19	6,700	800	93,000	

Will Golds be Fast to "Come Back"?

Last War Demonstrated Mines' Great Recovery Power

By GORDON M. GRANT

As war takes a still firmer grasp on Canada's gold mining industry, the immediate outlook for gold mining investments is not bright. Too many gold miners have either moved on to war jobs or are likely to be shifted through operation of selective service to allow any feeling of complacency.

But great as labor and other difficulties appear at this juncture, there is a brighter—and more fundamentally important—side to the gold mining picture. In a nutshell, the situation is as follows:

"Granted gold mining is a temporary war casualty, granted dividends may have to be cut further before the war is over, gold mining can still be expected to be among the first, if not the first, of our great industries to make a comeback after the war."

This is a view expressed by a mining man of long experience, a man noted for his keen insight into business and political affairs.

Higher gold mining profits will be just a matter of putting more men back to work, he suggests. The harder the gold mines are hit now, the greater the possible increase in profits after the war. Profits may rise sharply after the war even though the preceding decline in profits may have been slow, reflecting a gradual drying up of the labor supply and using up of broken ore reserves.

To Miss These Problems

After the war, gold mines are not expected to have to face two major problems industry generally may find confronting it:

The first of these problems is changing over of plants from war to peace production. With perhaps half our industry geared to war, many industries will face a period of dislocation, years may elapse before they get back to normal. Gold mines will not face this problem.

Second problem is markets. It is hoped broad markets will be found for most types of goods in the reconstruction period after the war but there is no absolute guarantee that these markets will actually exist. With Henry A. Wallace, vice-president of the United States and other authorities affirming the place of gold in the post-war world, gold appears assured of a ready market when hostilities are concluded.

A Higher Gold Price?

Possibility of a higher gold price cannot be ruled out. Some observers view a higher gold price as part of the solution for our "after the war" problems.

Backing the opinion of a quick recovery for the gold mining industry is experience of the last war.

Labor was the Achilles heel of the gold mining industry in the last war. Labor is rapidly becoming the most serious problem of the gold mining industry today. Supply shortages affected mines in the last war. Mines are finding greater and greater trouble today in securing needed supplies although effects of the supply shortage have been minimized by "pooling."

Gold stock prices were quick to reflect the rapid "comeback powers" of gold mining. They staged a considerable rally even before the war was over. For instance, Dome shares doubled between June and November, 1918. Hollinger and McIntyre shares also showed the most impressive increases in the six months before the armistice was signed. All three issues, continued gradually upward after the signing of the armistice.

While there is no questioning the shortage of labor gold mines experienced last war, the shortage does not appear to have been spread evenly from mine to mine. Operations at Hollinger and McIntyre were not nearly so seriously affected as the Dome Mines.

Outlying mines have so far felt most keenly the effects of loss of miners. As in the last war, a certain amount of green labor is being introduced with some loss of efficiency. The pool of inexperienced labor is rapidly drying up as a result of call-ups. Some use of women has already been undertaken but there is a limit to the number of jobs women can do.

Situation Tightening.

With this labor situation hitting the gold mines—and the move to have gold mines meet some of the labor shortages of the base metal mines—it may be but a question of time until the labor situation becomes as serious generally for gold mines as in the last war. Outlying and marginal mines have borne the brunt of the shortage of labor so far. Already a number of marginal mines have suspended for duration; others are on the verge of closing. Many of the larger and better-established mines anticipate difficulties but feel they will not have to close although operations may have to be drastically restricted.

Post-war gold stock markets, particularly if there is an increase in the gold price, may well duplicate some of the main features of the upward movement in the 1930's. In the last "bull market," gold mining securities moved upward in fairyl well defined sections—the established producers first, then the more marginal properties, followed by better grade prospects. As the trend developed, the market became more and more receptive, poorer prospect mines came in for their share of the attention.

In the final phases, the senior golds were already on their way down while more or less wildcat prospects were taking the limelight.

Although post-war mining conditions may not be identical with those prevailing in the 1930's, the removal of wartime restrictions will be almost as great a stimulus to the gold mines as was the rise in the price of gold nearly ten years ago.

If history repeats itself, not all gold prospects will secure a new going over. Far from it. Ore and ore indications will determine where most of any new interest will centre. A higher price for gold, however, might stimulate interest in properties that "smart money" wouldn't look at twice before this war.

Standouts of any post-war gold mining boom may be mining companies possessing relatively large ore reserves. Kerr-Addison and Malartic Gold Fields, it is suggested, might be in the forefront of the next gold mining boom. These mines are considered to possess the ore reserves—proven and potential—to thoroughly justify expansion of mill capacity. With present regulations, however expansion is out of the question.

Taxes Important

Taxation will be an important factor in determining the course gold mining profits take after the war. If our ordinary peacetime economy is to be restored, the 100% clause in the excess profits tax will have to be done away with to restore incentive. While taxes are likely to continue heavy, there seems good reason for thinking the general tax burden will be lightened.

As noted elsewhere, Dr. R. C. Wallace, president of Queen's University, has recommended a postwar easing of taxes if our mining industry is to be maintained. Possibly new gold mines might once more be given a three-year corporate tax exemption to stimulate postwar activity. In any case, it would hardly seem likely that gold mining would be subjected to higher taxation than industry in general.

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Mining Concentrates

Ajax Tungsten & Molybdenite Mines, formed recently, has taken over the property of Puritan Mines located in eastern Ontario, near Renfrew. Considerable work is stated to have been done on the property. A tunnel has been driven over 300 ft. through a high hill on which good surface showings are reported. Engineers employed by the old company estimated 80,000 tons of molybdenite ore available averaging 1% MoS_2. Plans are under way to put workings in shape. Production will start when the government announces final decision on a customs mill for molybdenum, it is stated.

* * *

Berens River Mines has declared three cents a share payable Sept. 25 to record Aug. 29.

* * *

B. C. gold mines should get together and co-operate with Ventures Ltd. in establishing a Pacific Coast steel industry, C. M. Campbell, west coast mining engineer suggests.

* * *

Delnite Mines has installed a plant for recovery of scheelite, the ore of tungsten. Plans call for turning out a concentrate which may be suitable for direct use by the steel industry. If the product is not directly suitable for use by the steel industry, however, it will be shipped to a plant capable of raising grade to marketing requirements. Production of scheelite will be purely a national service as little chance for profit is seen from its recovery.

* * *

Douglas Mountain Mines, with manganese prospects in the Elgin and Markhamville areas, N.B., is examining other base metal prospects. The company has been examining a cobalt property in the Gowganda area and the Omega lead and zinc property near Port Arthur, Ont. The Omega property is reported to have been purchased outright with further claims staked to bring holdings up to 35 claims in that section.

* * *

Hudson Bay Mining & Smelting has had the Manitoba Government change its mining regulations to permit employment of women about a mine. Officials of the company state it is their intention to employ female help in those occupations where conditions of work are not too heavy, too dirty, or too hard. Opportunities for employment of women are seen in the laboratory, in the smelter office, as samplers in the mill and the zinc plant, and as oilers. The shortage of labor has become acute.

* * *

Hollinger Consolidated Gold Mines has declared its four-weekly dividend of five cents a share payable Sept. 9 to record of Aug. 26.

* * *

Hedley Mascot Gold Mines had net profit of $46,668 after taxes, development and exploration, but before depreciation and depletion in the quarter ended June 30, 1942, equal to 2.05 cents a share. This compares with $61,438 the preceding quarter. The labor shortage in the second quarter, while it did not affect regular production, interfered with exploration and caused a lowering of grade of ore mined. The highest grade ore comes from the stopes in the lower levels where the soft ground requires timbering. A scarcity of experienced miners and timbermen made it impossible to extract from these stopes the usual proportion of high grade ore. Geological investigations are being continued although diamond drilling has been curtailed.

* * *

Pandora Cadillac Gold Mines is reported to have suspended production at its property earlier this month. A shortage of labor and supplies, together with the high cost of inexperienced labor, caused directors to decide there was little hope of profitable production during the war. Some 90 to 100 men on the Pandora payroll are reported to have quickly found employment elsewhere.

* * *

Pan Preference Mines was incorporated with a Manitoba charter late last month. Authorized capital of the company is 300,000 shares of no par value.

* * *

Preston East Dome Mines has declared a regular quarterly of five cents a share payable Oct. 15, 1942, to record Sept. 24.

* * *

Renabie Mines, Macassa controlled, is one of those gold mining properties likely to secure a mill when peace returns. It is understood a 300-ton mill has been recommended for the property when conditions allow. The property is located in the Sudbury district; the deposit is located in geological conditions which would not ordinarily be considered favorable for location of ore bodies.

* * *

Silver export was placed under control by an order-in-council dated Aug. 12. This testifies to the increasing importance of this metal in the war effort. Ores, alloys, semi-fabricated and fabricated products are covered as well as the pure metal.

* * *

South American Gold & Platinum has declared a dividend of 10 cents a share payable in U. S. funds Sept. 14, 1942, to shareholders of record Aug. 29.

* * *

Sullivan Consolidated has found some important scheelite showings in its mine. The concentrating plant has now been completed for handling all hand-cobbed scheelite as it comes from the picking belt where the gathering is done. Officials are hoping for an output of about 200 lb. a month.

Moneta Testing Mine at Depth

Enough Ore Still on Hand to Carry Operations Into Next Year

With work so far unsuccessful in finding ore at depth, Moneta Porcupine Mines is now drilling two deep test holes, 800 ft. apart, from the 1,450-ft. level in the south section of the mine. These holes are designed to cut the contact zone at a depth of 1,000 ft. or approximately 2,450 ft. below surface.

The mine is at present being operated on a salvage basis. Ore reserves remaining are estimated as sufficient to carry operations into the first quarter of next year. The surface pillar of high grade ore, over widths of 25 ft. to the north of the shaft, is now being mined. It is expected this will be mined out before next winter.

The company plans to continue in the exploration and development fields. A strong treasury position is available to back this up. While no profit is expected from holdings in Dominion Magnesium for the duration of the war, it is possible these holdings may prove valuable in the postwar period.

Buffalo Ankerite Ready To Start on New Levels

From Our Own Correspondent

TIMMINS.—With its main shaft completed to 3,450 ft. depth, Buffalo Ankerite Gold Mines has now six new levels available for development— at 2,650; 2,800; 2,950; 3,100; 3,250 and 3,400 ft. Plans call for immediate lateral development on the 3,100 and 3,250-ft. levels.

Horizontal diamond drilling from new stations—carried out the past two months—has returned highly encouraging ore and structural intersections with new ore structure indicated along the contact between the feldspar porphyry and pillow lavas.

Rich Ore At 3,100 ft.

On the 3,100-ft. level, three drill holes sited to the south, southwest and west intersected ore structure over a length of 150 ft. trending northwest-southeast. Drill hole No. 3,104 drilled due south from the shaft station cut structure along the contact zone over a core length of 76.5 ft. averaging $16.98 per ton.

Drill hole No. 3102, drilled southwest, cut 22.5 ft. averaging $13.47 per ton at 50 ft. west of the first hole. Hole No. 3103 drilled west cut 4 ft. averaging $16.62 per ton and 9 ft. of $24.85 ore at 100 ft. west of No. 3102. The ore intersections occur in the contact zone of the main porphyry mass and pillow lavas.

Values at 3,256 ft. Lower

A similar series of three holes on the 3,250-ft. level, drilled from the shaft station in the same planes as those from the 3,100-ft. level, disclosed similar geological structure with lower values and widths for the ore intersections. Drifts to the south and west are to be advanced immediately on both levels. Development in ore is expected to be under way early in September as the potential ore zone is within 150 ft. of the shaft.

Net profit for the half year before taxation is estimated at below $100,000. Production in June was adversely affected by a break-down and cost of shaft sinking has also been charged directly to operations.

In the south or No. 3 zone of the mine, from which upward of 65% of ore milled has been drawn in recent months, exploration to the west is continuing on the 1,400, 1,550, 1,700 and 1,850-ft. levels. The drift faces on all levels are now 400 to 600 ft. from the west boundary with the Aunor mine. Raises to the west are being driven from the 2,000-ft. level through to the 1,700-ft. level. On the 1,400-ft. level, two new parallel ore zones have been opened up with lengths of 120 ft. grading about $6.13 per ton across 6 to 9 ft. Stoping operations on the 1,550-ft. level are being carried out to the west across widths of 40 ft. in ore of better than mine average grade. The No. 3 ore bodies occur irregularly over width sharing with the best showings so far opened up between the 1,200 and 1,700-ft. horizons.

The long crosscut driven south on the 2,350-ft. level parallel to the west boundary has not disclosed definite ore structure.

Bonetal Testing North Zone

3,500 to 4,000 Tons of Ore Being Treated Monthly in Broulan Mill

From Our Own Correspondent

TIMMINS. — Current exploration at Bonetal Gold Mines is being concentrated on the low grade, large tonnage possibilities of the north zone. The possibilities are being determined for mining in the future under more favorable conditions.

Development on the third level west in the north zone has opened up one lenticular ore body occurring north of the contact zone in silicified greenstones. The gold values are contained in flat-lying quartz stringer zones. Slashing has defined the ore body as 75 ft. long by 40 ft. wide with upward of 1,000 tons of ore to the vertical foot of 0.14 oz. indicated grade.

In the original surface drilling programme gold values were indicated over a length of 1,150 ft. across a north-south width of 400 ft.

The west drift on the second level has been advanced for 430 ft. to the west and is now above the No. 3-430 ore body on the third level. Typical structure, with flat-lying quartz stringers, has been disclosed close to the contact zone. Exploratory drilling of the area is now under way. The drift is to be continued west a distance of 600 ft. to where surface drill hole No. 32 returned persistent gold values over a core length of 27 ft.

Production is being maintained by shipment of 3,500 to 4,000 tons a month to the adjoining Broulan mill. Stoping operations are proceeding in the south zone from which the principal tonnage milled is drawn. Ore from development headings in the north zone is also being milled.

Grade is marginal under existing operating conditions, but revenue is sufficient to meet expenditures, it is stated.

Gatineau Power Output Higher

Good Water Conditions Boost Production. New Unit Waits Agreement

From Our Own Correspondent

MONTREAL.—Kilowatt hour output of Gatineau Power Co. for the current year to date has been well ahead of the like period of 1941 due to exceptionally favorable water conditions. Not only has the company been able to meet its primary power requirements, but has had a substantial surplus of secondary power available for sale for steam purposes.

The proposed 25,000 h.p. addition to the Bryson development has been held up pending final settlement by Ontario and Quebec of the terms of their agreement covering rights to development of different sections of the Ottawa River. Meanwhile, the priority situation is becoming increasingly difficult.

Fraser Industries Ltd., a subsidiary of Fraser Co. Ltd., supplied the paper for the first edition of "My Part In the Second World War," a diary and data book for persons in the United States military service. Over 2½ tons of book paper were used in making this book of 100 pages.

Skinner Oil Year Book Now Off the Press

Thirty-third edition of the Oil & Petroleum Year Book is off the press. The 290-page book is published by Walter E. Skinner, 20 Copthall Ave., London, E.C.2 — price, 11 shillings.

The book covers complete and up-to-date particulars concerning 514 companies — producers, refiners, transporters, and oil dealers—arranged in alphabetical order.

Information on each company includes directors and other officials, nature of business, description of property and details of financial position. A price range of shares for the last three years is also included.

A buyers' guide of manufacturers of oilfield and refinery equipment and accessories is given under 282 headings.

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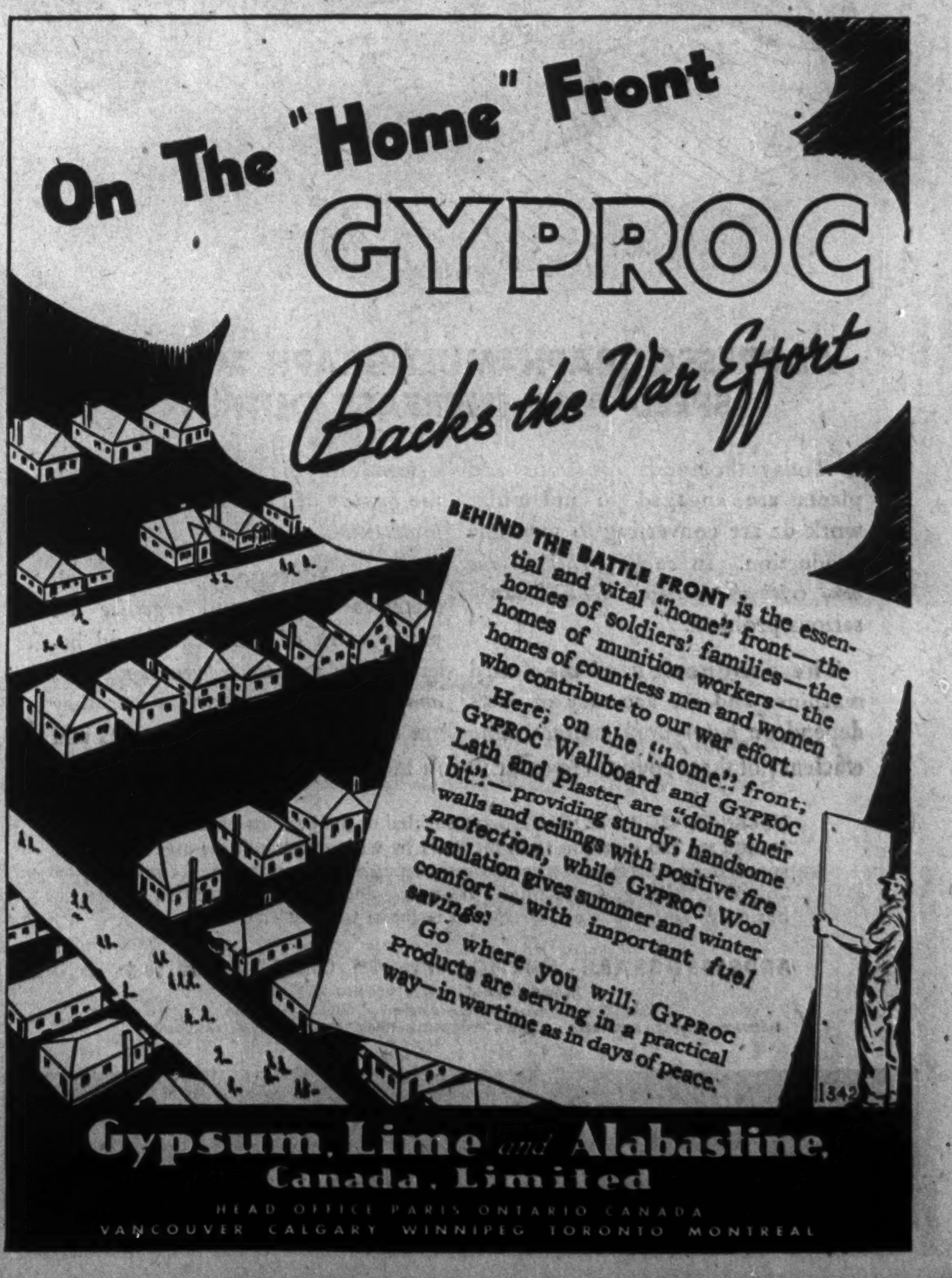

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Pulp and Paper Power Plan Nearly Ready

War Plants to Draw on Part of 2,000,000 h.p. Load

By JOHN E. LANGDON

October 1 is the tentative date set for putting into operation the plan whereby the pulp and paper industry will make available part of the power it now employs for use in war industries.

The diversion of hydro-electric power from pulp and paper plants into war industries, especially the aluminum industry, has long been mooted.

The lack of any definite action to date has been due to three causes:

(1) Existence of exceedingly good water conditions in Quebec and Ontario.

(2) Bringing additional generators into operation and the creation of a vast inter-switching system in Quebec.

(3) The decline in newsprint production freeing a large quantity of power.

At this time there is sufficient hydro-electric energy to take care of all war and civilian demands.

Depends on Aluminum

This condition may continue up to the end of the year. Whether or not there will be any material change before that time depends upon how fast the new aluminum pot rooms are brought into operation. Also a factor is the expansion of operations in other war industries.

Though water conditions in the central area are exceptionally good and the kilowatt hours output for the next few months promises to be of record proportions, by mid-winter there will be a definite shortage of power.

It is this expectation which has caused the Power Controller and power operators, as well as those concerned with war production, to lay plans now to prevent any slow-down due to lack of power.

Huge Power Pool

The diversion of power from non-essential to essential industries brings the pulp and paper industry sharply into focus.

Largest source of power upon which war industry can draw, pulp and paper provides the greatest individual peacetime market for the power produced by the central electric stations. Ordinarily it purchases more than 50% of all power sold for industrial purposes.

During 1940, notwithstanding the great reduction in the amount of power purchased by the industry for use in electric boilers and the growing munitions load, approximately 36% of all industrial power sold by central stations was purchased for use in pulp and paper mills.

Power in Right Place

Moreover, the pulp and paper industry is largely concentrated in Quebec and Ontario, main centres of war production.

Power plays an important part in the everyday social and economic life of the country, but there is a general misunderstanding of its employment.

The amount of electrical energy used in the average home is infinitesimal.

The amount used in the ordinary industrial plant rarely exceeds 25 h.p.

When an industrial power plant employs 100 h.p., it is regarded by power operators as a big power user.

One of the largest war plants in Canada today uses only 4,000 h.p.

But in electro-chemical or electro-metallurgical operations, the entire picture changes. Instead of 50 h.p., or 500 h.p., a single aluminum pot room will use as much as 40,000 h.p.

Can Meet Demand

With the aluminum industry undergoing constant expansion, it is obvious that in order to secure 40,000 h.p. for one pot-room it would be necessary to cut off the power from possibly hundreds of industrial plants to secure the amount required.

On the other hand the pulp and paper industry, by a moderate curtailment of operations, can provide several times that amount with less disruption to the economic system.

Two Types of Power

Broadly speaking the generation of power in this country is divided into two classifications—central electric stations and installations in industrial plants.

The pulp and paper industry uses both purchased power and power generated in its own plants.

At the beginning of this year operators had installed 649,801 h.p. of hydro-electric energy. This was 7.3% of all installations in the Dominion, including central electric stations.

This capacity was divided by provinces as follows: British Columbia, 105,950 h.p.; Ontario, 231,277 h.p.; Quebec, 273,022 h.p.; New Brunswick, 20,694 h.p.; and Nova Scotia, 18,858 h.p.

In addition the pulp and paper industry has motor equipment for operation by hydro electricity having a capacity of more than 1,315,000 h.p. and electric boilers rated at more than 1¾ million h.p.

Use 2 Million H.P.

In 1940 the pulp and paper industry employed 1,986,667 h.p. of electrical energy. This includes power generated in its own plants as well as that purchased from central electric stations. Quebec used 1,059,681 h.p.; Ontario, 564,110 h.p.; British Columbia, 137,250; and Manitoba, New Brunswick and Nova Scotia combined, 225,626 h.p. The industry spent $17,345,301 for purchased power.

The breakdown of this power bill, together with the quantity of energy purchased from the central electric stations is set out below:

	Thousand kw.h. purchased	Amount paid
British Columbia ..	7,308	$ 51,248
Ontario	2,005,939	540,148
Quebec	5,6[illegible],172	11,510,000
Others*	690,330	243,725
Total	8,367,749	17,345,301

*Manitoba, New Brunswick and Nova Scotia.

Cut Down Use

Since compilation of these figures a number of important changes have taken place.

Deliveries of energy for use in electric boilers have been drastically curtailed.

In 1940 3,381,447 thousand kilowatt hours of energy were used in boilers, practically all in Ontario and Quebec.

The following year the amount used dropped to 2,579,445 m. kw.h.

For the first six months this year deliveries totalled 1,378,000 m. kw.h.

The apparent maintenance of deliveries this year has been due to exceedingly good water conditions and the fact all other requirements were being met.

The pulp and paper industry was notified some time ago that it could not depend upon further deliveries of energy for use in electric boilers. The companies have since built coal-fired steam plants, making themselves independent of electricity for raising steam.

Newsprint Output Off

The second factor is a relatively sharp drop in production of newsprint. This is highly important since 100 h.p. of electrical energy are required to produce one ton of newsprint paper.

Since 1940 the rate of operations in the newsprint mills has dropped 16%. This has meant the release of a vast quantity of energy for use in war and other industries.

There is no accurate figure showing the amount of electrical energy diverted from pulp and paper operations to other industries in the past year.

Give Up More

The industry has by no means given up all the power that it may be called upon to surrender in order to meet the needs of war industries.

More will have to be given up. The amount surrendered will not be equally divided as between provinces for a number of reasons. In the first place some pulp and paper plants are located in areas where the energy cannot be employed in war industries, others where there is ample power for all needs.

Thus the further limitation of power deliveries to the pulp and paper industries will be limited almost entirely to plants in Ontario and Quebec. Nor will all plants in those areas be affected.

Centre Most Affected

Those pulp and paper plants which are expected to make the greatest sacrifices of power for war industries are located in the Saguenay; St. Maurice Valley; St. Lawrence River Valley; Ottawa River Valley and southwestern Ontario areas.

Without exception all the companies in those areas are either wholly or for the greater part dependent upon central electric stations for their power supply.

These plants will not necessarily have to close down. It is not simply a matter of transferring tonnage from one mill to another in order to secure an adequate supply of power. Wood piles cannot be moved easily. Labor supplies are also a factor. Moreover the power deliveries to these mills are far in excess of what can be possibly required by war industries over the months immediately ahead.

The problem is to adjust operations so as to give war industries the power when needed.

Need Careful Planning

This programme will involve careful planning. Unless unforeseen developments arise, there is no reason for expecting a major upheaval in operations of the industry in the Quebec-Ontario areas during the next 12 months.

It is to be expected that all plants will be affected directly and indirectly, but whatever plan is followed, adjustments probably will be made with a minimum disturbance to the industry or those dependent upon it for a livelihood.

Considerable thought and much planning already has been given to the problem of how the pulp and paper industry can meet the power requirements of war industries. When the change-over takes place around October 1, the industry will be ready to do its part. In doing so, it is believed that whatever curtailment of production is necessary, the capacity unaffected should be sufficient to take care of pulp and paper requirements.

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Newsprint
Groundwood Pulp News Sulphite Pulp
High Grade Bleached Sulphite Pulp

McColl to Widen Purchase Rights

Shareholders to Vote Greater Leeway in Purchase of Preferred

From Our Own Correspondent

MONTREAL.—Removal of certain restrictions in respect to the McColl-Frontenac Oil Co.'s purchase of its own preferred shares for the sinking fund is embodied in a by-law, which the preferred and common shareholders will be asked to approve at a special general meeting to be held on Sept. 30.

Present restrictions have proved unsatisfactory, nor in the best interests of the company and the shareholders, according to J. M. Pritchard, president, "and their removal should tend toward more stabilized market conditions for the preferred shares."

No Time Limit

The proposed new by-law would authorize the company to purchase its preferred shares in any amount and at any time up to a price not exceeding the redemption figure of $105 a share and accrued dividends. It would also extend to the end of each fiscal year the period in which the company must expend the allotted sums in purchase or redemption of the preferred shares. To be spent each year is an amount equal to at least 10% of the net revenue available for distribution on the outstanding common stock, as certified by the auditors, earned during the preceding fiscal year.

Under existing by-laws the company is obliged to expend 10% of the earnings available for the common stock by purchasing preferred shares in the open market within three months of the end of each fiscal year, or, if sufficient shares cannot be purchased at or below the redemption price within this period, the balance of the fund must be employed in the manner provided in the by-laws for partial redemption.

Cotton Operations On Easier Scale

From Our Own Correspondent

MONTREAL. — Canadian cotton operations moved up seasonally during July, but activity, as indicated by the number of bales opened, was somewhat less than a year ago.

Last month, 41,873 bales were opened, compared with 36,927 bales in June and 42,519 bales in July, 1941.

Powell River Co. Barging Newsprint

From Our Own Correspondent

MONTREAL.—Powell River Co., Powell River, B.C., is using covered barges to move newsprint from its mill up the coast to Vancouver, where connections are made with transcontinental railways and steamship lines.

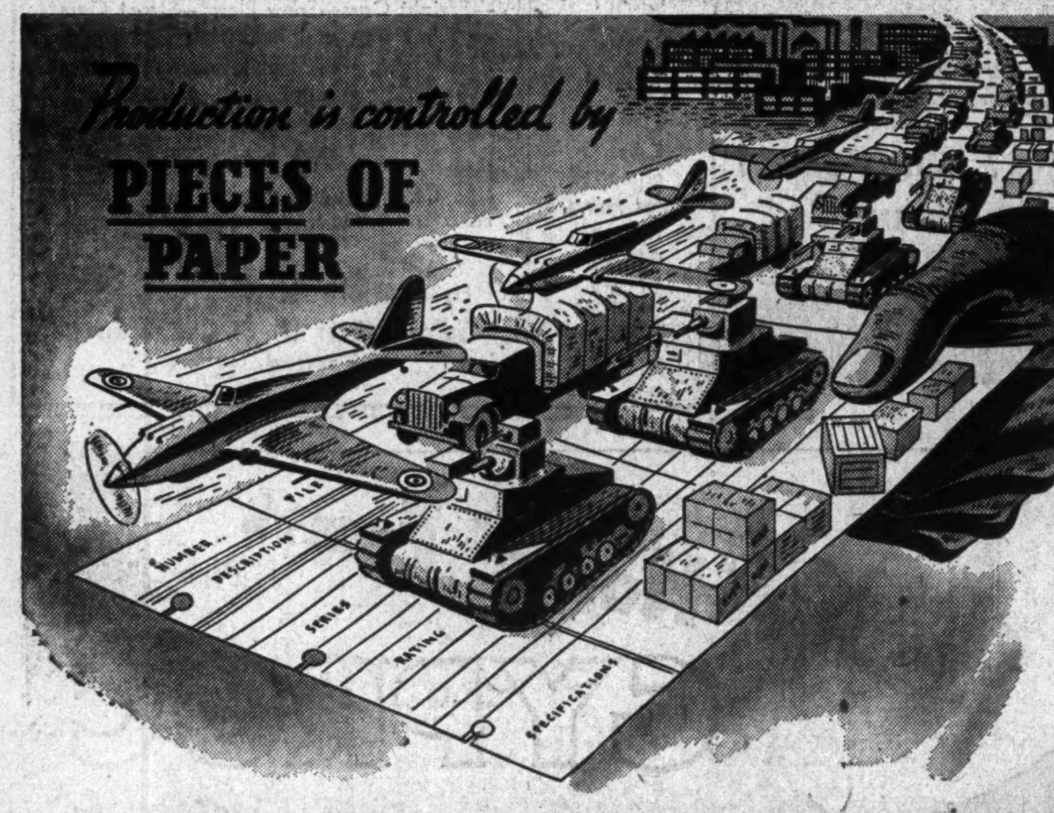
For many years Powell River Co. has operated its own transportation company, carrying a considerable portion of its newsprint over the 80 miles between Powell River and Vancouver on its own carriers.

Sidney Roofing & Paper Adding Third Machine

From Our Own Correspondent

MONTREAL.—Sidney Roofing & Paper Co. has placed a third cylinder machine in operation at their main plant in Victoria, B.C., to increase production of roofing felts, building papers and boxboards.

The new machine is housed in a new concrete and brick structure, 260 by 50 feet, of two-floor construction.



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"Fandangles"

"Fandangles" may not be in your dictionary but our grandpa used it sometimes when something new came along of which he was just naturally suspicious. Doubt and scepticism have deprived many people of the benefits which new devices, new ways, new methods have brought about.

Many present offices still reflect that old "fandangle" attitude toward modern methods. Records, that should be immediately available are stored in inaccessible cases, and classified with elementary indexes that multiply the difficulties of efficient management.

Work is piling up; help is scarce and hard to keep. In these times especially, up-to-date filing is the difference between order and chaos.

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Test Flight

Pilots of the R.C.A.F. and of Fairchild Aircraft Limited tackle a test flight with the assurance born of experience and skill and with confidence in the quality and workmanship of the machine they are testing.

The future holds many difficulties to surmount. It is the knowledge of the United Nations' ability to build rapidly, test accurately and use effectively the weapons of war which gives us assurance that we can tackle whatever the future brings.

The Bolingbroke production line is geared to do its part as quickly as hands, brains and mechanical ingenuity can achieve it.

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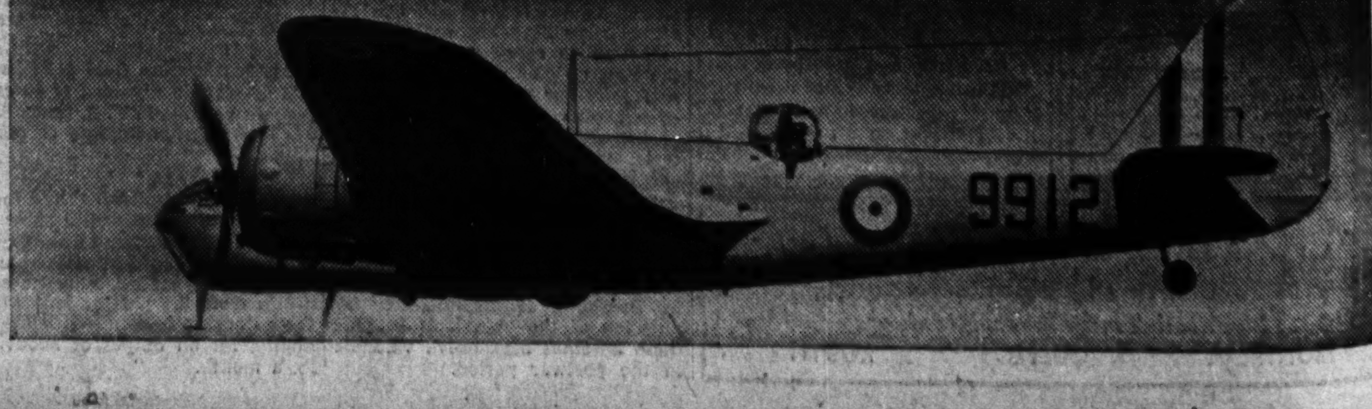
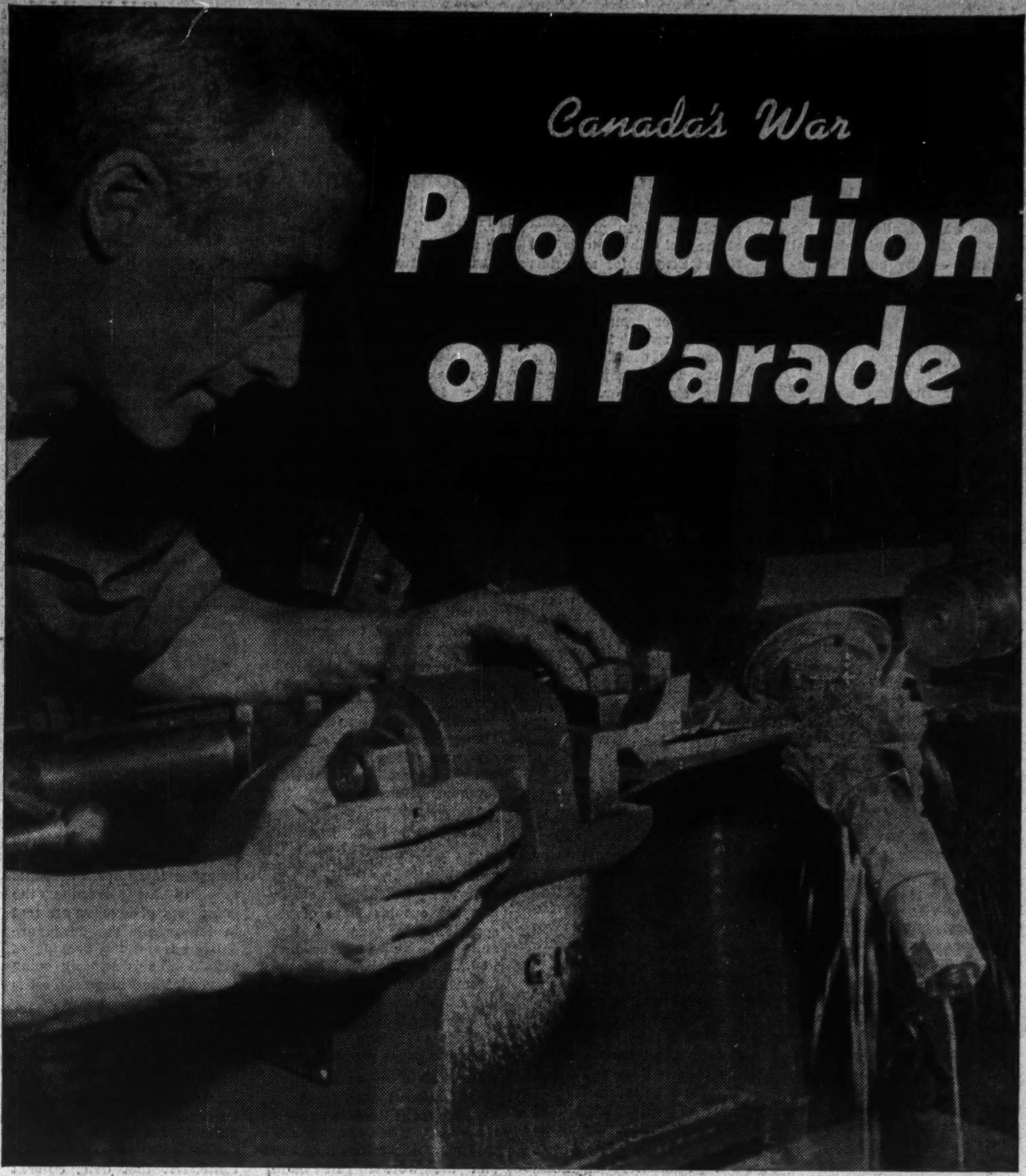


THE FINANCIAL
POST

AUGUST 29, 1942

Canada's War
Production on Parade



Precision — the art that makes it possible to fit a gun-sight made in Toronto to a gun built in Sorel, permits 100 separate plants to combine in producing a single weapon, cuts repair and replacement costs to a minimum. Precision production is the first step toward mass production.

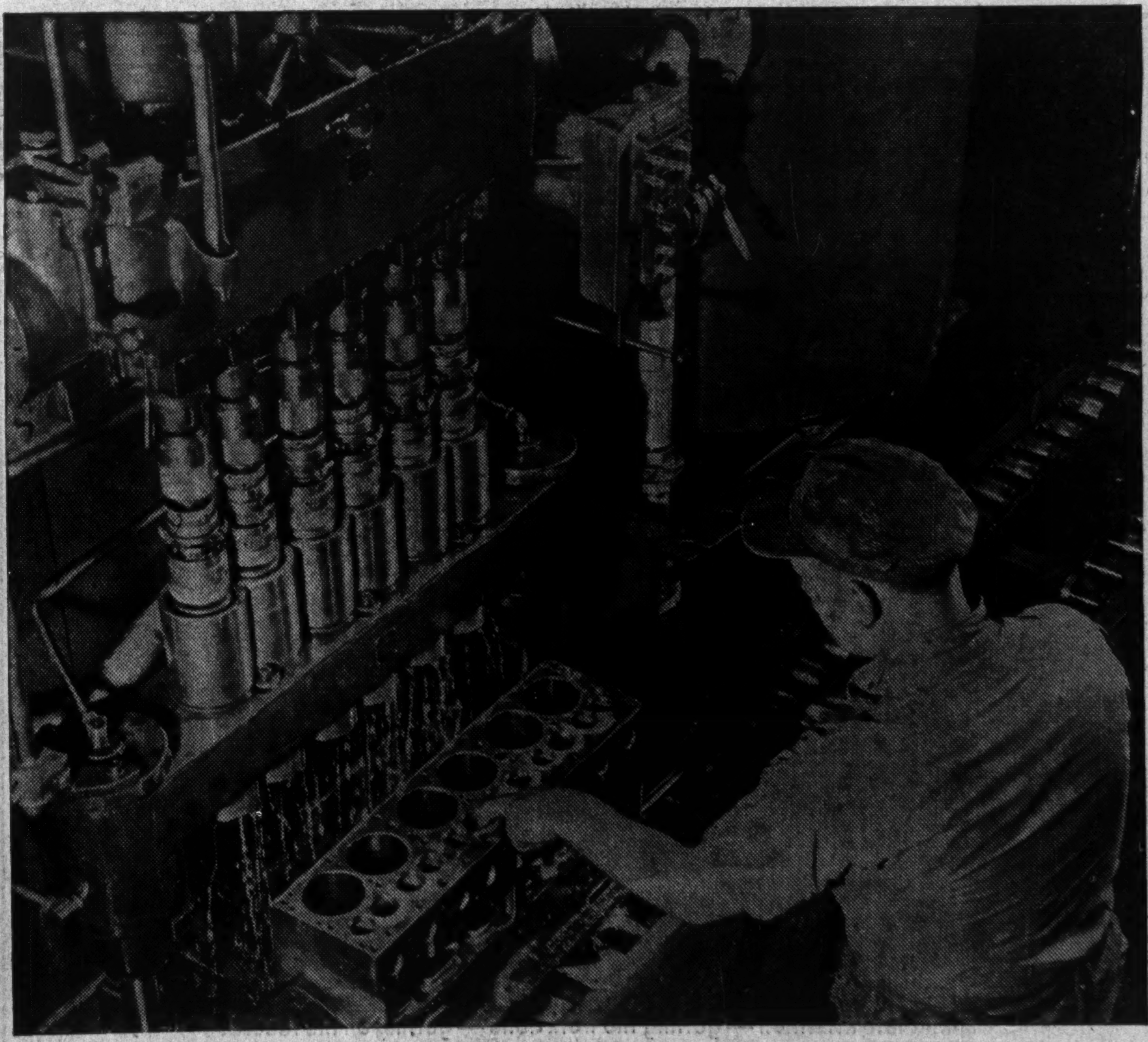
Essence of War Output Is a State of Mind

Behind the hum of war machinery, the rumble of weapon-laden transports, lie the great intangibles of war production—the arts of precision—of mass production—of co-ordination.

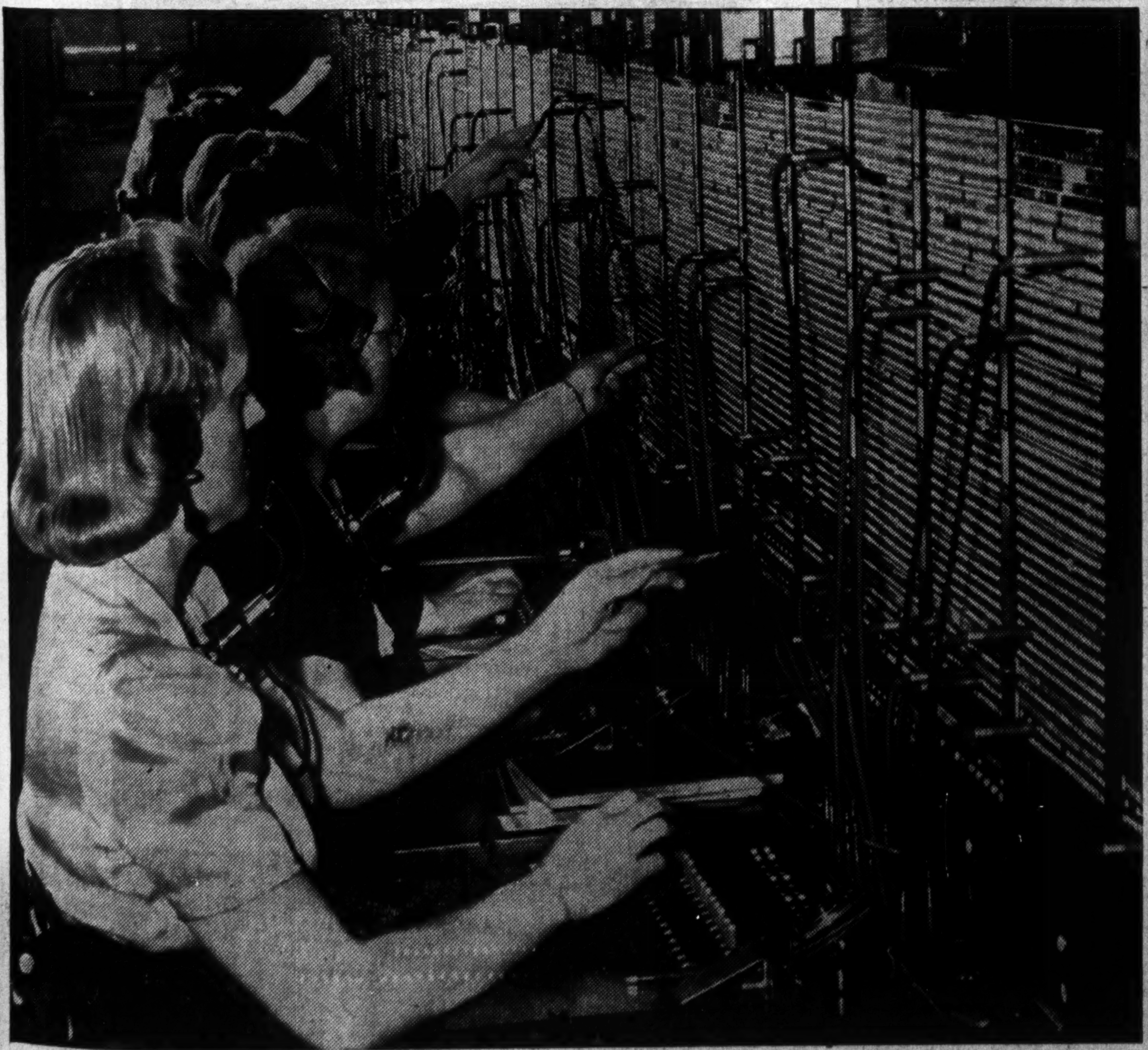
Together, these arts become the single art of Management, the soul of coherent production. If they were absent or insufficient, Canada's vast resources could only spawn a monstrous tide of disjointed odds and ends, Canada's fighting forces would be a rabble.

That they are not absent is the triumph of Canadian industrialists. In hundreds of plants across the Dominion, production men mastered in their peacetime plants these arts that are now co-ordinating and governing a gigantic, unified effort. In battle dress, the arts of management have grown in stature, spread to new trades, brought new technical power to Canadian industry.

In the following pages, The Financial Post surveys the growth and spread of these arts, the most potent force in war production, brightest hope of postwar Canada.



Mass Production— the art that develops from a mastery of planning, co-ordinating the output of precisely made parts, dovetailing the flow of units from a thousand separate operations. No modern war can be fought without this art.



Co-ordination — In the complex industrial and economic fabric of a nation at war, no thread is more vital than the web of communications. The nation's nerve lines are being monopolized by war, have less and less room for civilian messages.

Post Report For August

Science at Work

Technical Achievements, Communications, Business Machines

Making the Most of Canadian Manpower

Experts Say Some Plants Can Increase Production 50% With Present Workers and Machines

One way of alleviating the growing shortage of industrial workers — the one that involves the least possible dislocation—is to make more efficient use of the workers we have.

Early this year a firm of management engineers estimated for The Financial Post that a 25% increase in industrial output could be achieved through making more efficient use of present labor and machine resources. Another firm in the same business maintains that the possible gains range from 10 to 50% while using existing equipment, with little or no increase in working force.

Helping management to make a better use of their plant and working forces has for many years been a specialized profession. It is carried on in Canada by a number of organizations including Bedeaux Co., G. S. May, Stevenson & Kellogg, J. D. Woods Co., and others.

Up to Management

Responsibility is primarily on the management where failure to achieve a maximum use of existing plant and labor is found. The scientific approach is essential, in the view of all specialists in this behind-the-scenes profession. The question must be asked: What can we do now to make our available skilled labor meet immediate requirements? Operating on a system of progression which involves the classification of personnel, job analysis and labor grading is one answer, but in large plants it often requires considerable time.

The ideal solution requires that every skilled worker be put on the job which requires maximum use of his precise skill and that widely-known examples of misuse of skilled labor be eliminated. A few examples suggested to The Financial Post are as follows:

Highly skilled workers should be given preference at the tool crib for tools and the stockroom for materials or these errands assigned to less valuable employees.

No tool or diemaker should have to spend 15 minutes truing and dressing at the emery wheel before he can sharpen a lathe or drill.

Highly-skilled technicians should not be required to remove chips, or clean and oil machines before or after using them. They should not have to tear down simple machine set-ups, a job which the assistant, in training to be a set-up man, should be able to handle.

Eliminate time loss where mechanics and technicians have to search for tools; have special tool kits for each job, assembled and ready. Make certain that tools are reconditioned before returned to storage so that they will be ready for use when required again, a job which one less skilled than the technician who used the tools can handle.

Avoid a drain on skilled labor due to low machinery efficiency caused by improper belting, worn out bearings or other reasons, and provide proper material sizes to avoid removing excessive amounts of materials in manufacture of parts.

Provide charts, clear instructions and drawings, and the right machine for the right job, all factors which can reduce time waste and increase production.

Know Employees' Skills

These are a few cases which industrial engineers think are typical of ways in which management can help boost production, make work easier for employees and generally improve the morale of the working force.

Management is urged to gather first hand knowledge of every employee's skills and to analyze all jobs to determine the degree of skill required for each operation.

A recent survey of a thousand manufacturing companies in the United States showed that complete training programmes for new employees were being conducted by 50% of these companies. Another 44% of manufacturers surveyed reported use of their own equipment only to supplement the primary training already received by new employees in trade or vocational schools. The remaining 6% reported no training programme of any kind.

In this whole picture the position of the foreman is important and is not always fully realized. It used to be that a foreman was hired because of his skill and mechanical knowledge. Today's foreman must be versatile; he becomes management in the production line. Management cannot control cost unless it solicits and obtains co-operation from the foreman.

Foreman's Part

The foreman also has a responsibility in finding out everything which will help in carrying out his share of responsibility for ever-increasing and more efficient production. In the final analysis, the foreman is charged with making wage rate incentives and such methods of paying are claimed to belong inevitably with maximum production.

In establishing an incentive wage rate, management is urged to make the rate fair for, if the wage is fair, the company gets more labor for its money and the worker gets more money for his labor. Size up the worker by analyzing his mental attitude, his education, and his manual dexterity. Then instruct him properly and fully so that he understands how the rate of pay can be made.

The foreman is charged with making the rate effective, another illustration of the vital importance of supervisory employees.

Canadian manufacturers have been alive to this necessity. They have been urged by Ottawa authorities to make the most of what they have and warned that more labor and more machines simply cannot be provided.

Scientific Approach

By a scientific approach to the proper schedules of work throughout his plant, a shoe manufacturer in Montreal increased production 20% without any increase of labor or clerical work. He cut his inventory of work-in-process 50%.

Out of this study by an industrial engineering firm in this one plant was developed a mathematical formula whereby work can be scheduled through any shoe manufacturing plant, assuring that the right kind of parts come together at the right time and place.

A Canadian textile firm cut costs 20% although obtaining an increase of 25% in production. There was no increase in staff with the workers employed receiving a general increase in earnings of about 10%.

A Canadian foundry boosted its output 20% without any more equipment or labor.

While various firms of industrial engineers approach their work in different ways, they all have the objective of simplifying the job, breaking it down into its simplest elements, ascertaining what can be eliminated, what combined, or where the sequence can be changed.

Some Examples

In a rayon plant, there were scales for weighing coal in the power house. Every time a batch of coal was weighed a ticket was written. Then the entries on the tickets were totalled on an adding machine. The power house employee rigged up a totalling device on the scales itself, saving $165 a month and a corresponding number of hours.

In a tobacco manufacturing plant a girl stood by a conveyor belt at a point where a carton of cigarettes had to be turned so that they would travel head-on. The boss was planning a mechanical turner which would cost $300. Passing the girl he noticed she was not working but the first finger on her right hand was projecting about an inch over the conveyor. She had discovered a strategic spot and each carton as it struck her finger swerved to the exact position.

A nail was inserted where the girl had been holding her finger; she was given another job and a raise.

Almost every job can be done an easier, faster or cheaper way. Hundreds of cases can be cited, all relating to a certain basic principle. To raise or lower a chair may mean less fatigue to the operator, less time for stretching or squirming, more production and earnings, and finally, lower cost per unit for management.

Work can almost invariably be arranged so that the worker uses both hands equally, a simple development of the parlor trick of patting the head with one hand and rubbing the stomach with the other at the same time.

"Why" Attitude

Industrial engineers developed the "why" attitude. They want to know the reasons for each particular step in a process, always having in mind that something may be eliminated, combined or simplified. They want to break down the job into the simplest possible classification of motions, saving time and energy.

Engineers claim the average worker is a slow worker. Starting from this normal worker, management and labor works out the price that is paid for that unit of work, a basic rate of pay which the worker receives no matter how much or how little he produces. For production above the normal figure the workers get a bonus and it is emphasized by industrial engineers that incentive plans should be so devised that virtually everybody makes a bonus. The result is the workers no longer have any suspicion about easier or faster methods.

Basically industrial engineering is a process of teaching which holds that places to hunt for improvement and savings range from the president's office to the office boy.

NYLON PARACHUTES

Because it is needed for parachutes, nylon has been brought under jurisdiction of the Department of Munitions and Supply. Formerly most parachutes were made of silk. However, when supplies for this were cut off, many other materials were tested. Nylon proved well suited for the purpose.

SORTING MANPOWER

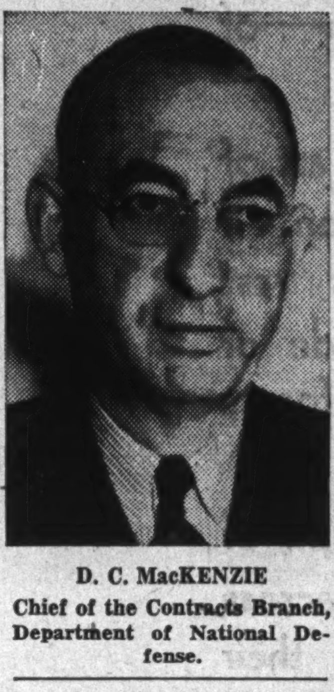
Sorting out and analyzing the occupational skills, hobbies, education and attitudes of every man that enters the American Army is the job of more than 6,000 personnel officers and men who were trained especially by the war department.

Contract Plan Cuts Delays In Paying War Producers

Substantial progress has been made in curing one of the sorest ills of Canada's war machinery—the delay in paying for the weapons produced by Canadian industry. Although a few unpaid accounts are still long overdue, the great bulk of invoices are met in the month the goods are delivered and the backlog of unpaid bills is steadily being reduced, The Financial Post is told.

Beginning Jan. 1, 1942, a new system of handling invoices from contractors was started under the direction of D. C. MacKenzie, director of the Contracts Branch, who in a private capacity is the president of Ontario Fuels, Ltd., Toronto. At that date, current contracts were separated from old contracts that had not been settled. The current contracts were paid promptly and a separate division set up to investigate and pass on the old contracts.

So successful has the new policy been that this Contracts Branch now reports that it is able to take discounts amounting to about $10,000 monthly on invoices, more than enough to cover all salaries in the branch which is 100% manned by civilians.



D. C. MacKENZIE
Chief of the Contracts Branch, Department of National Defense.

The branch handles contracts covering perhaps $6 millions of goods in an average week. It receives between 12,000 and 15,000 invoices each month, striving—and succeeding—to pass these invoices for payment in not more than 30 days. The Contracts Branch had on hand, early in the days of the present setup, a maximum of upward of 18,000 invoices not yet passed for payment. The backlog has been reduced to less than 50% of this total and only a few of these would rank as past due.

This thorough housecleaning began through a survey by the Financial Superintendent of Department. His findings quickly pointed to the necessity of obtaining an executive who possessed the peculiar qualities necessary for a wartime department.

The Contracts Branch at the beginning of hostilities had a small staff capable of handling the peacetime quota of about 400 invoices each week. It purchased all materials required for national defense—army, navy and air.

In the changes that followed outbreak of war, the Contracts Branch became more properly the contractors' accounts payable branch. It endeavored to pass contractors' invoices for payment, but it soon became obvious that it could not get the avalanche of invoices paid within a reasonable time.

Under the direction of Mr. Mackenzie, modern office equipment has been installed, new forms and modern business practices used, in order that invoices could be paid under terms of sale. A necessary reallocation of personnel was made and a new experienced staff obtained. Mr. MacKenzie started his survey and study last September and inaugurated the improved system at the beginning of 1942.

When a contractor's invoice is received, it must be carefully checked against the order given by the Department of Munitions and Supply. Prices must be checked and it must be proved that the exact goods ordered are received in the correct quantity, entirely serviceable for use. The goods must have been duly inspected by an authorized government inspector and it must be ascertained that all other details of purchase are satisfactory. The time for movement of goods from the manufacturer's warehouse to the point of delivery must be taken into account in figuring the time required in which to pass bills for payment.

The past due invoices are receiving special attention by a staff of trained clerks who are making a definite effort to clear up these accounts and have contractors paid.

MINE WAGES HIGH

Mining has the highest average wage rate of any Canadian industry, according to the Monthly Review of Business Statistics. In February, the last month for which figures are available, the weekly average wage in the mining industry was $36.13. This compared with $27.65 for all Canadian industry, $34.50 for the transportation industry, $28.39 for manufacturing, $24.82 for construction and maintenance, and $17.54 for logging.

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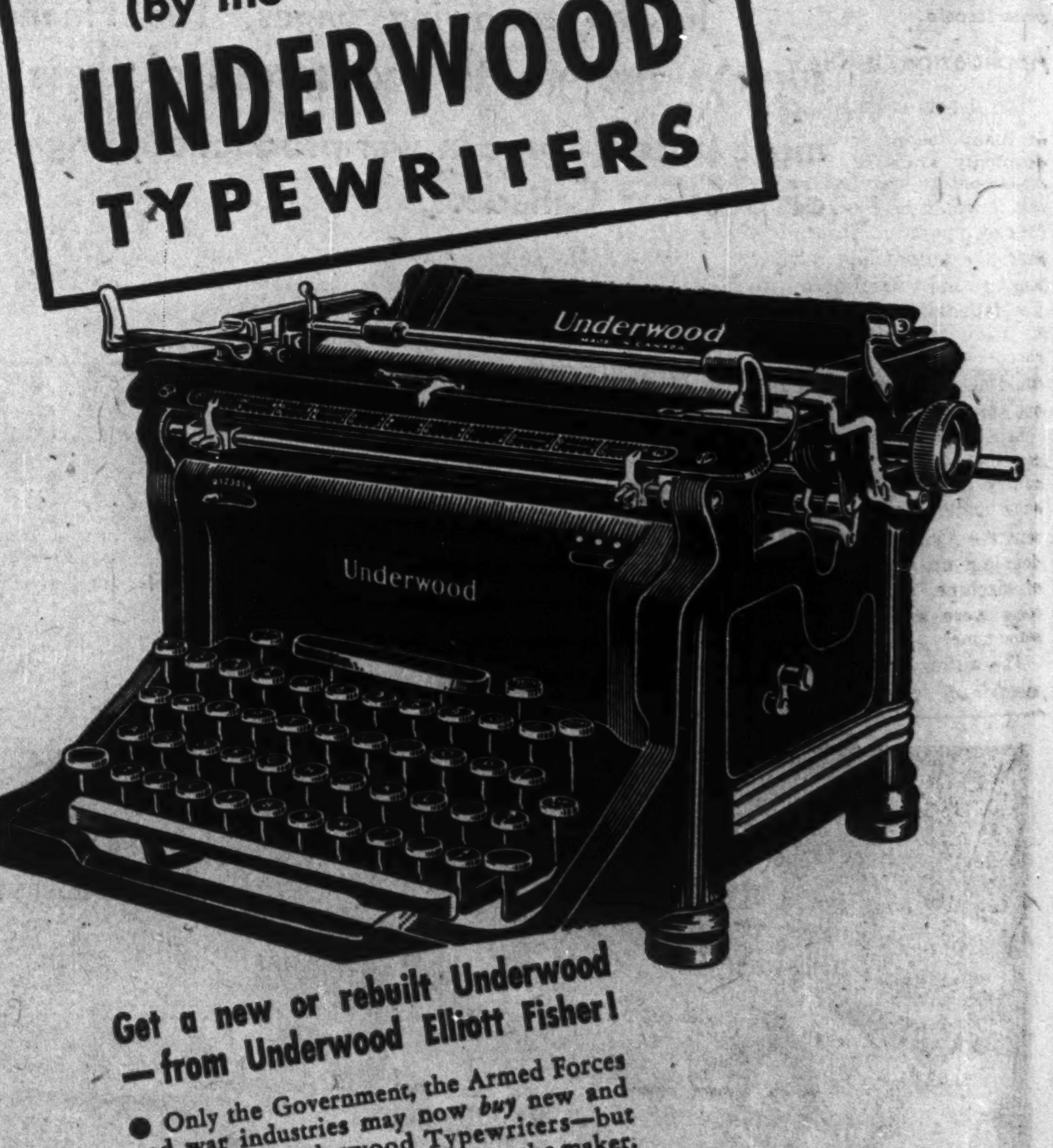

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War Opens New Industrial Horizons

Canadian Craftsmen Multiply Peacetime Skills in War Production

By ERIC CRAWFORD
Editor, Canadian Machinery

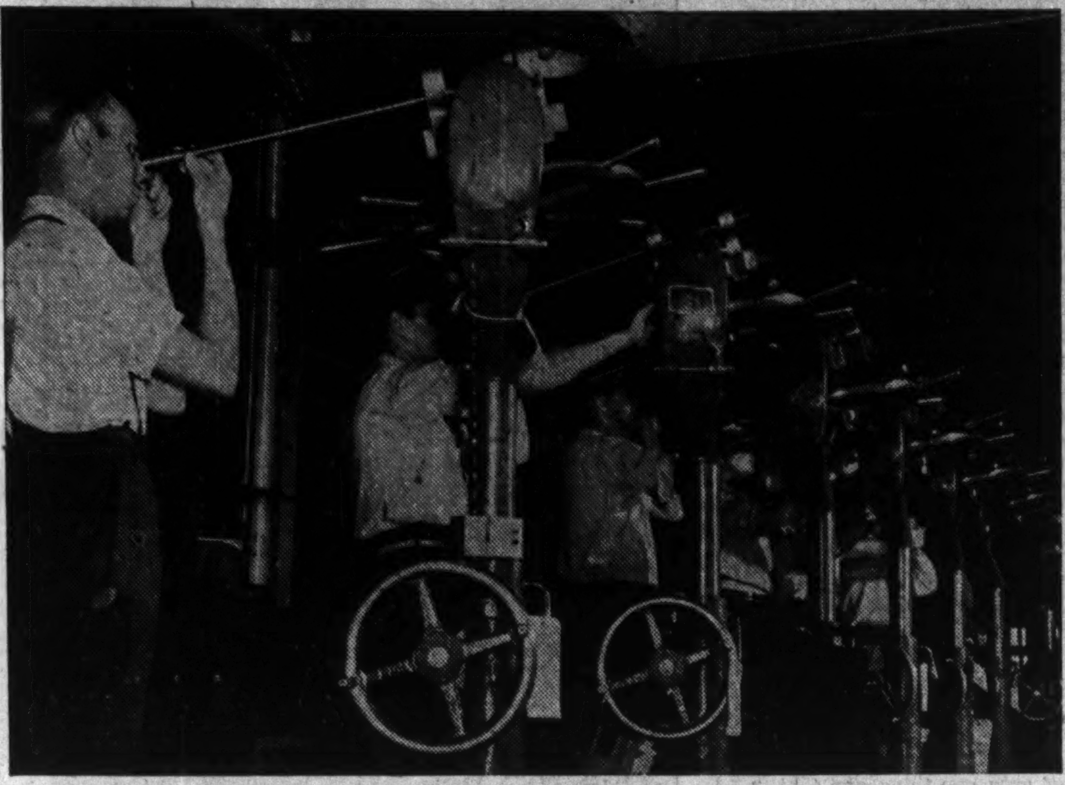
Most methods now in use in war production, and looked upon as new, are not new at all, but have only become more widespread in their applications.

Synthetic rubber, for example, of which so much is expected and about which so many explanations have appeared in the press recently, has been made for years.

Shipbuilding from prefabricated parts was done during the last war, but a combination of the revival of old superstitions and limited orders caused its abandonment between the wars.

The principles of extending car gasoline mileage by careful and efficient driving, and the saving of tires by transposing them, were all known long ago, but few people took the trouble until the pinch came.

Even such items as the lisle, cotton and rayon hosiery to replace silk are only broadening the use of materials which were known and used before silk was ever thought of in stockings.



Honing, which produced the perfect precision and finish of the interior of the rifle barrels here shown being tested and straightened, will likely become common in post-war industry. Used before the war to finish automobile cylinders, the process is expected to replace the time-eating "lapping" used in many industries, to give perfection fit to other products. Honing uses less than a quarter the time, and a wide range of war plants now have the equipment and skill to use the more efficient process.

Precision Work

In the same way the precision manufacture which is now permitting the mass production of guns, automotive equipment, technical and optical instruments, ammunition, and the tools to produce these items and hundreds of others has been standard practice in tool rooms for years. The advantages have now come to be realized by manufacturers holding war contracts who are interested first of all in interchangeability and low cost. The main advantage of precision in ordinary mechanical production is that it eliminates hand fitting, as distinct from instrument work and gauge making, when the accuracy is necessary for its own sake.

As a result of the war, hundreds of Canadian shops, and thousands of American, have changed over their style of working since receiving armament contracts, because they had to meet the specifications of the drawings and to make the components work, because it made the work of manufacturing and putting together easier and quicker, and because it paid.

Application is New

This is new in its application to many shops, which undoubtedly knew of the principles before, but never felt that it would be economical in their own particular case. However, the automobile industry long ago built itself up on just this foundation, both because it made a better machine cheaper and because a man could be quickly trained to do one simple job well.

Especially was this latter the case if the machine had its accuracy built-in. By spreading work under more hands doing separate jobs, rather than doubling up on any one type of machine, simpler machine tools were applicable at the same time.

The automobile industry is mentioned particularly because it was wise enough to see early the advantages of this type of manufacture, which has since been shared by such industries as electric motor and appliance manufacturers and radio firms.

The precision, then, that we hear about so much is not new—even in high production jobs. Many automotive motor and gearing jobs have consistently been made to limits of accuracy of less than one thousandth of an inch.

What is new is that these principles have now reached so far into other fields which, until the advent of war contracts, never had enough duplicates of one piece to justify adding machines, buying tools, or struggling with new and strange methods. Now these plants have acquired several things which will stay with them after the war.

Plants and Equipment

Many new buildings were paid for by enterprising and independent manufacturers who preferred to go on their own, but many paid for by government money. Though technically these latter buildings revert to the government after cessation of hostilities, there is little doubt that government will have not much use for them, except a few, and the chances are that the neighboring factory will find itself with an addition aching to be used.

The same applies to new machines, but the picture is more mixed. A machine which has been doing one job 24 hours a day will in an increasing degree as the war lasts longer become difficult to adapt to other work. A lathe, for example, doing one short job often enough, wears a hollow in its bed and thus becomes inaccurate for turning a straight cut for a longer length. Some machines can resist this tendency longer than others, but this rebuilding of tools is one job in postwar rehabilitation that must be anticipated.

Manufacturing market will have an unprecedented supply of usable talent because the general rule is to encourage every operator to become as capable as he can in as many directions as possible, even to making foremen into plant managers. The chance has come to hundreds who have made good. They have had an opportunity very rare in peacetime of building a business from the ground up.

There are processes which have long been available but not widely used until now, such as honing, broaching, thread grinding, surface grinding, hobbing and many others. The peacetime attitude has been that, while such machines would solve many a production problem they were too expensive for the limited amount of work necessary, and so designs of machines in production were modified to allow a relatively makeshift method of manufacture.

Machinery Industry

Now Canada's machinery industry has hundreds of these machines which will be either in good condition or readily repairable after the war. Designers will be familiar with the uses of these machines and the different classes of work which can be produced on them.

There is no question that many manufacturers have constantly in mind the shape of things to come for their own business. There is not much time for research or the drawing up of new patterns, but the thoughts are certainly there in the minds of the executives. At the same time these executives have an opportunity of studying the staff under them and deciding whose style of working or thinking promises best for the future.

They will also have their eyes on the alternative materials which have been developed as a result of shortages of such items as tin, tungsten, molybdenum. Astonishing results have been achieved, under pressure of necessity, in developing low alloys by proper heat treatment into metals having physical characteristics equal to or better than those normally employed. Even here, the developments have been largely in the nature of utilizing research reports prepared and presented before various technical associations years ago, and published in obscure corners. These reports have been brought into the open and studied and the results now put to practical use. There is a definite possibility that some of these "lean" alloys, both ferrous and non-ferrous, will be less expensive than their forbears, and this point is well worth watching.

A technique for spot-welding aluminum sheet, which would be very valuable in the aircraft industry, even in wartime, has been desired for a long time and a few manufacturers have produced processes which carry out this work with fair success. Other welding methods have advanced considerably, although possibly only one represents a completely new process. It will, however, have an important place in the future, because it is a process which can be taken to the work, rather than bringing the work to the machine, and yet produce welded seams of mechanical uniformity and finish, on large areas, such as ship decks.

Developments in plastics were well under way before the war started; in fact, it has been said that 1,000 new compounds per year were developed by plastics chemists. Of course, a great deal of this work has been suspended for the duration, so that the war can hardly be given credit for this.

Will to Survive

There will unquestionably be a let-down when munitions production stops, as what is being manufactured now has no peacetime application of any consequence. Most powerful factor in the reconstruction and readjustment will be the will to survive of individuals and heads of businesses. Those who have made no preparations beforehand will indulge in a scramble to decide on new products or new designs of their original products, and to find markets. Those who have had the foresight—and the opportunity to think over these presently irrelevant subjects will be able to start systematically to develop tooling for their existing machines, and to find means of putting to work the new processes with which they and their employees have become familiar.

It would be futile to attempt to read the minds of those who will undertake this work.

There will be capacity in the country for a much greater degree of self-sufficiency than was experienced before the war. Steel production will be much nearer, though not reach, the point of independence. Aluminum tube, shapes, sheet and forgings, brass and copper tubing, aircraft, aircraft propellers, marine engines, ships, chemicals of many varieties—these are a few of the items which will be either new to the country or in an enormously greater supply than ever before.

A few items, such as aircraft propellers, are being made on a royalty-free basis, which will probably terminate with the war. Shipbuilding would need heavy subsidy to keep it alive in Canada, because our costs of making sea-going shipping are quite out of line.

But all this brings us back to the fact that what is new is not the technology, except in the case of secret instruments such as the radio-locator, the effect of which upon the future can only be guessed vaguely, but the application in general industry of principles which have been long applied in special industries, and experience with production volume in Canada which has only been envied in its U.S. applications in the past.

Perhaps the hardest hit of all our industries which have struggled through thick and thin will be the machine tool manufacturing business, which has done such miracles of production of new and old design of tools for war work. The country will be full of tools it never had before, with not enough work for them to do, and chance of selling further new machines depends first of all upon finding work for these existing machines to do and the broadening of markets, probably by population increase and perhaps an export business to Europe and Asia.

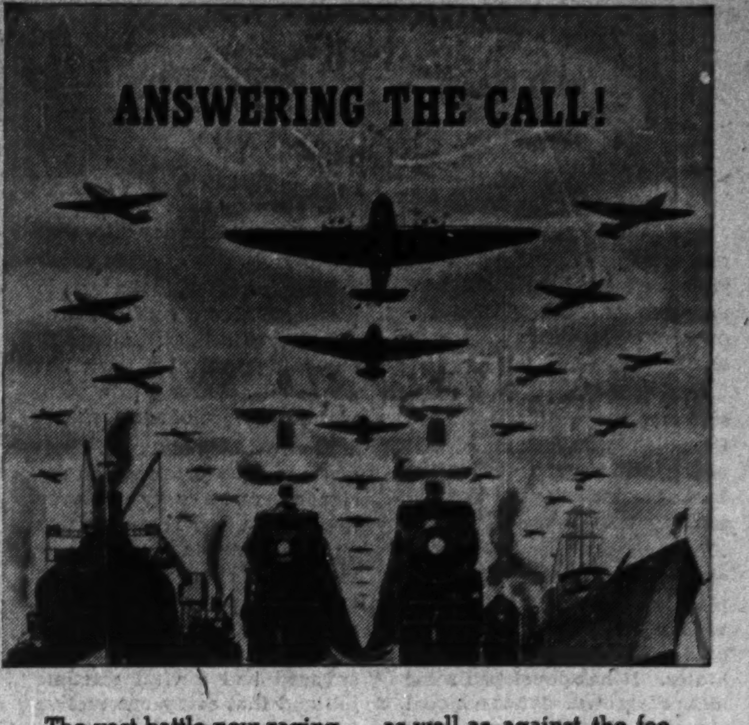
It will take all the ingenuity of our machine tool engineers to develop these types of machines which will create a new market for several years after the war.

Says Electronic Tube Might Save Ships

One measure which might help to minimize the sinking of Allied shipping by Axis submarine commanders is the use of an electronic tube to warn the ship's fireman when smoke is coming from the vessel's stack, according to W. C. White, director of General Electric's electronic laboratory.

"Enemy submarines can often locate their intended victims by their smoke trails, even though the ship is over the horizon," he points out. "Firemen try to guard against the incomplete combustion which sends clouds of telltale soot aloft. By the use of an electronic tube in the smoke stack of the ship, these firemen would automatically be given instant warning when telltale smoke began to emanate from the firebox.

"General Electric has put the phototube to work in industrial plants to warn of smoking stacks and to save fuel, and a similar arrangement could be made in ship stacks. A beam of light is thrown across the smoke column in the chimney and made to shine on the phototube, most versatile of the electronic tubes. When the smoke gets too thick in the chimney, the light is blocked and the phototube works a relay which sounds a warning for the fireman. This enables him to take corrective measures which clears the smoking conditions and conserves fuel."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How One Plant Boosts Morale

Thompson Products Plan For Fostering a Fighting Spirit

Are you planning a morale programme for your plant? Is your production suffering from absenteeism, high labor turnover, unenthusiastic workmanship?

One of the most comprehensive morale programmes in Canadian war plants is that now getting underway at the St. Catharines plant of Thompson Products Ltd.

No morale programme is altogether original. The T. P. plan is borrowed from a wide variety of plans which have proven successful in the United States. It has developed some ideas of its own. It has adapted ideas to its own particular needs. Its sponsors have told the whole story to The Financial Post in the belief that it will help other industries.

Thompson Products before the war had about 300 employees, it now has about 1,000 of whom perhaps 50% are Anglo-Saxon.

The particular problem here was that some 70% of the staff were brand new workers who had not developed any particular loyalty to the firm or to the job.

The company is engaged in making gun parts, munitions and a wide variety of parts for motor transports such as valves, piston, drag lengths, tie rods, cranks.

Meaning of "Morale"

Firm officials admit they weren't even too sure of what the word "morale" meant when they started. By assiduously canvassing American industry they got a library full of books and pamphlets describing morale campaigns which had worked in the United States.

Soon they found out at least what morale could do. The day following Pearl Harbor United States war production increased 50%.

It became very obvious that the purpose of a morale campaign was to make workers feel every day as mad and as enthusiastic as American workers were the day after that national disaster.

They found too, that a morale campaign was a constant process, never a blitz; that doing one thing well at a time, but above all according to a plan, was the essence of success.

The first step and most obvious was a poster campaign designed to make every employee aware that the company was engaged 100% in essential war production. Posters emphasized that every piece of equipment was being produced for war purposes, that every worker engaged had a vital wartime job and that every automotive part was a weapon just the same as shells are weapons; that every weapon produced this year would be worth two turned out next year; that every day, every hour, every minute counts.

Another set of posters which were promoted as forcefully as possible throughout the plant and among all employees was explaining Government controls over wages and prices and so on; especially explaining Government controls over profits. One poster entitled "Employee Controls" pointed out the following:

"Wages will be limited to the average of the years 1926-1929.

"Bonuses, based on Bureau of Statistics figures, will be paid to cover increased cost of living.

"Rents and prices will be controlled to prevent rapid increases.

"No increases will be allowed, to cover war taxes or savings."

The poster also pointed out that the 1926-29 cost of living was 12½% higher than the immediate pre-war level and that "our average wage rates to skilled tradesmen are now at least 40% higher than those paid at the highest level of 1926-29 in this district."

Another poster was headed "Company Controls." It stated that "the Government in awarding war contracts has exercised care that profits be restricted and further in addition to provincal taxation and the Corporate Income Tax of 18% there has been imposed under the Excess Profit Tax Act a further tax of 100% on the excess of current profits over prewar profits.

Non-profit War

In other words it was made very clear to the workers that the company was doing a job of national importance for "wages" rather than for profit. Another poster in this group headed "This is Our Employment Policy."

"To provide the best possible working condition.

"To pay the highest wage rate consistent with Government regulations.

"To up-grade wages at definite intervals as justified by merit and improvement.

"To make promotions strictly on the basis of fitness and ability.

"Give due consideration to seniority in all matters.

"To conform to all Government regulations."

After the poster campaign had been given time to sink in, the next step in the programme was made.

"TP4V"

One morning the symbol "TP4V" appeared painted on the floors and walls all over the plant, fences and sidewalks leading to the entrances. Display advertisements in local newspapers ran for several days simply reproducing the symbol and the first question "What does it mean?" The same ad appeared on several pages of the same publication.

At the same time announcement was made of a contest for employees to determine the meaning of the symbol. Entrants were cautioned that the most obvious answer was not necessarily the right one. It was announced that in case of ties the winner would be determined by draw. Cash prizes were offered. Display ads in the local newspapers continued throughout the campaign.

After this scheme had been promoted and played for its full value it was eventually announced that the slogan meant 'Top Production for Victory."

Employees then received at their homes a personal letter from G. A. Stauffer, vice-president and general manager. The letter asked their complete cooperation for the Top Production for Victory drive, so that the company could more than fulfil its undertaking as a 100% war industry. Enclosed was a handsomely printed pledge card.

Here are a few sentences from Mr. Stauffer's letter: it is addressed to "My fellow war workers." It carries the ornate and colorful sticker TP4V. Mr. Stauffer starts his letter "Tomorrow we launch our Top Production for Victory drive. It signifies that all of us at Thompson Products will put forth every effort to speed the flow of war materials so urgently needed at this time.

"Complacency and indifference have caused untold thousands of workers on the continent of Europe to lose their freedom. It must not happen here. We are engaged in a battle of production in which free men must out-produce Axis slaves. Every piece of equipment delivered in 1942 will be worth several in 1943.

"The TP4V Emblem which all of us will be proud to wear is indicative of the solemn pledge to give our best—that brave men shall not perish.

"Time is short and speed is the need."

Each worker who signs a pledge card is given a well made TP4V emblem — lapel buttons for men and pins for women.

Army Tie-up

The formal opening of this campaign was signalized by the visit to the plant of a group of army officers from Camp Borden. With them they had brought universal carriers, jeeps, army trucks and other motorized equipment. The officers toured the plant, chatted with workers and special emphasis was placed on showing workers precisely where the products of their factory were used in the military equipment on display.

By the time these "goings on" had begun to move into the background a new poster campaign was commenced. A large poster board was prepared, headed by the question "Who is winning this war?"

The copy here started off "Some people have the idea that the war is already half won. Yet many outstanding observers maintain that we have not even begun to win this war—and are in grave danger of losing it."

The poster gives some of the facts and then asks the question:

"If Russia does go down then what? Britain, Canada and U.S.A. would face the most desperate struggle for survival in the history of any people. And Russia may go down. In war you can be sure of only one thing and that is you can not be sure of anything.

"Face the grim reality there are only two possibilities, victory or defeat.

"Only one thing is responsible for this lack of war materials.

"One thing only can save us—production of war materials.

"Hitler CANNOT be beaten without all-out, unqualified effort on the part of everyone in Canada and U.S.A. who is engaged in the production of war materials to reach and surpass Axis production — regardless of personal consequences.

"This plant no longer exists solely to provide either wages or profits. Its only purpose today is to aid war by making munitions and other essential war equipment to defend this country's very existence. Management and employees alike are in the total service of the nation.

"We appeal to all our fellow workers in this war industry to pledge themselves, heart and soul, in our drive for increased production, as a matter of imperative public duty and self preservation."

Does this make you fighting mad?
for Victory

Essence of "Morale," in battle or production, is the fighting spirit, farsighted chiefs of Thompson Products Ltd. found when they started to boost morale in their plants. Noting that U. S. war output jumped 50% the day after Pearl Harbor, Thompson Products set out to capture and hold the "fighting mad" spirit that wins the production battle. Above is one step in their carefully built programme, a poster depicting the starvation of Greece under enemy occupation.

Another large billboard was headed "Does This Make You Fighting Mad?" This was a very large blow-up of a two-page spread in Life Magazine which showed bodies of starved to death Greeks.

The plan calls for changing this board as frequently as new and striking material is available.

The next phase of the campaign was to inaugurate an employees' suggestion scheme. Once again this was handled by a personal letter from the vice-president and general manager sent to the employee's home.

The company drew up a scheme of cash awards and this was announced as a permanent addition to company policy. A sixteen-page booklet went to each employee stating "There is Always a Better Way."

It was made clear that suggestions from foremen or department heads on shop methods in their own department would not receive rewards as it was part of their regular duties to make such recommendations. It gave an

(Continued on page 19)

GLOBE
"PROTECT-U"
WAGE ENVELOPES

Simplify PAY ROLL WORK

"PROTECT-U" WAGE ENVELOPES list all deductions including the NEW INCOME TAX with COMPULSORY SAVINGS, as well as unemployment insurance, war stamps, war bonds, etc.

On the same pay envelope, space is allotted for regular and overtime pay, production bonus and cost of living bonus. The employee simply signs the accounting receipt attached and both parties have a full statement of the pay including all deductions.

Order from your stationer or printer or direct from

GLOBE ENVELOPES LIMITED

Makers of Well Gummed Envelopes

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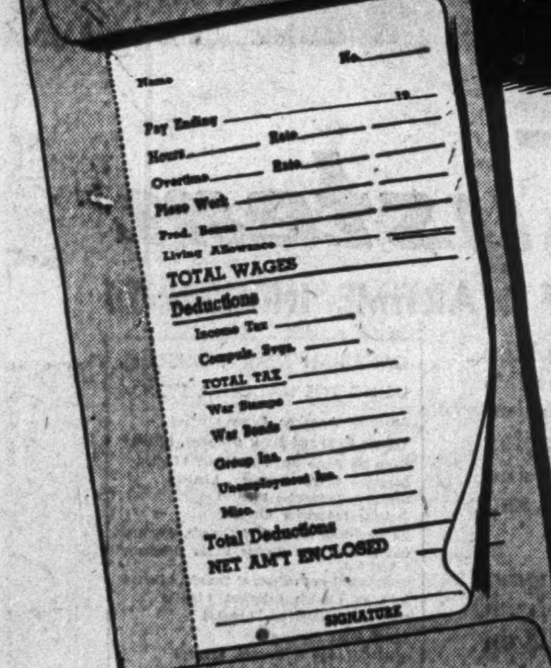
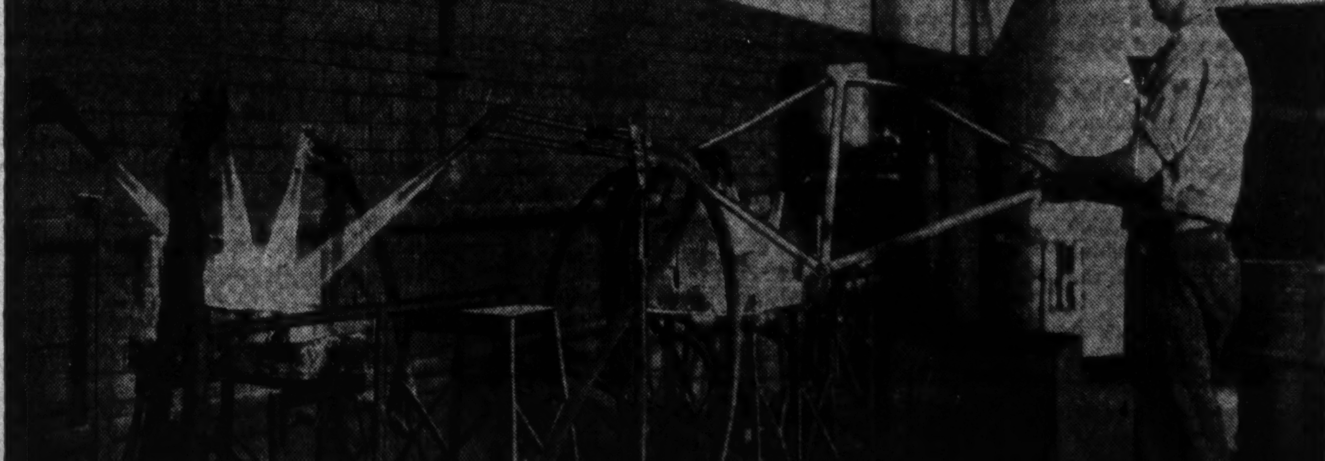


EVERY ENVELOPE HAS ITS OWN RECEIPT ATTACHED

BICYCLES play an increasingly important role in war-time transportation



WITH motor cars leaving the road by hundreds every month — with street cars and bus space at a premium — the bicycle has come back into its own. In Toronto, hundreds of war workers now pedal to their daily tasks — and enjoy it!

GAS plays a vital role in the production of bicycles — as it does with hundreds of other items essential to war production and allied services.

AS ILLUSTRATED

Illustrated is a scene in the brazing room of the Standard Cycle Products Ltd., Victoria Park Avenue, Toronto. Gas is used for three main purposes—(1) For heating the bicycle frames in the brazing operation (as illustrated). (2) For firing the oven, where the painted metal parts are baked. (3) For hardening the special steel used in certain parts of the equipment.

Many new uses for gas are being found from day to day. The full fascinating story of these can only be told after the war.

INDUSTRIAL DIVISION
THE CONSUMERS' GAS Company
124 Richmond Street West
AD. 6941

How to Boost Morale

(Continued from page 18)

extensive list of problems on which employees might work—on which they might seek to produce an idea. Very important guidance in the suggestion scheme is given by the printed suggestion form supplied all employees. It is headed "To the Chairman, Suggestion Committee." The importance of the form is indicated by the headings "I Suggest" "I Believe This Will" and finally "I Believe It Will Be Accomplished." These various headings give some assurance that an employee has actually thought out his scheme fairly well from all angles before sending it in.

Pay for Suggestions

The employee is told very frankly how suggestions are handled.

"After investigation the department head passes on a report to the suggestion committee on the merits of your suggestions.

"If acceptable your suggestion is put into effect as soon as practicable.

"If suggestion is not accepted you will be so advised and the reasons fully stated.

"Any suggestor not satisfied with the reasons given and who feels that certain points have been overlooked in the investigation has the right to appeal. Following this he will be given an opportunity to state his case."

The Suggestion Committee after checking the savings and expenses involved in any adopted suggestion, determines the amount of the award to be paid. Such award will be predicated upon one year's use of the suggestion. A maximum award for any single suggestion will be $500.

Next step in the plan was introduction of the competitive system between various divisions of the company. Now five divisions are pitted against one another in monthly production competitions. For each department there is a divisional score board and figures are posted from day to day.

Introduction of this competitive team spirit is regarded as crucial factor in any such programme and the fact that for reasons of safety, production of certain items is censored and not revealed simply adds to the general interest in the programme.

A war production score board located on the wall of the canteen graphically indicates how production of one division compares with that of the others from day to day. An imposing banner called "Victory Banner Award" is presented monthly to the winning department. Prizes in War Saving Certificates are provided for the winning department.

So far there has been insufficient time for a satisfactory check on the success of this campaign, with one exception, that is in production. And there the sponsors are more than satisfied with early results.

They emphasize, however, that such a campaign has to be continuing and they realize that the measure of their success must be made in months to come.

. . . From a Personnel Manager's Notebook . . .

The secret of success in any morale building campaign is to remember it must have two appeals, emotional appeal and the practical appeal, but you can only go one step at a time and constantly keeping up the interest is vital.

If you have any message to give all your workers, send them a personal letter to their homes. Do not distribute it in the plant, they are busy there and won't take time to read it properly. Above all, don't insert it in a pay envelope. We have all seen the floor around the pay wicket cluttered with some message the boss wanted to put over and bearing his signature. When employees come for their pay they want their pay. They are self-conscious about reading messages from the boss. Somebody is sure to throw away their message and the act is catching like the measles. It is a useless way of trying to get out a message and it is bad business all around to have the floor littered with them.

The head of any company is never wasting his time when he is writing a letter to an employee. When an employee sends in a suggestion, acknowledge it at once. Have a letter at his home the following morning. Nothing kills a suggestion plan programme faster than to let an employee think nothing has been done or that he is being sabotaged.

Don't apologize for your suggestion boxes. Make them big, I mean really big, ten times bigger than they need to be. The little, tiny, apologetic suggestion boxes that you see in most plants leave the impression that you don't expect many suggestions and that they are not important. Get a suggestion form and have them readily available at many places around the plant. The form is necessary because it will guide the person making the suggestion and help make sure that he has thought out his scheme. Don't hide your suggestion boxes in a dark corner. Better still, paint an 8-foot circle in red or yellow paint on the wall behind the suggestion box to draw attention to it.

Don't jump to conclusions too easily about the value of uniforms, especially for women workers. A woman doesn't work her best unless she feels her best. Women like to be different. In one plant where the women are now wearing uniform overalls, one little girl is trying so hard to be different that she has one pant leg rolled up like the kid in the famous old Domestic Shortening billboard advertisement, the other pant leg down.

* * *

Make sure there is a full-length mirror in the women's rest room. If you have handled everything else all right they won't waste time on it, but knowing they look well, they work better.

Is there a big contrast between the entrance for executives and for workers? Clean up the workers' entrance, make it bright—paint is cheap. If all of us went to work through the magnificent doors of a fine church or university we would all work better.

If you have a competitive scheme between different departments have an award for the winning department, a big banner or something that they will be glad to keep and that all the other departments can see. Have a dunce cap or a goofus bird for the departments that come at the bottom of the production list. But never present the goofus bird formally. Save this for a company dance or something of that nature when it can be presented with smiles all round. No feelings are hurt but the effect is secured.

No matter what you are making, let all your employees know exactly where the product of their hands fits into the final product. This is especially important in war production.

Discuss everything ahead of time with foremen. If you don't win their enthusiastic co-operation you are licked to start with.

If you must have front office men going through the plant, checking, etc., make sure they don't look like sportsmen just in from the golf club. Tell them to leave their sports shoes and flashy clothes at home. It will be better for them if they wear a drab suit that won't soil so easily.

Don't get a slogan, get a symbol.

Morale is a whole lot of little things tied together. It is the golden rule in action.

If you have a lot of women workers you will often find a "big sister" helpful. Get the right kind of woman, young, attractive, broad minded, very understanding. She will help everybody. But the company's nurse or a company welfare worker is seldom the person for this job.

Clean out the plant. Housekeeping in a plant should be as good as it is at home. Be as smart as some gasoline companies and restaurant chains. Capitalize on the excellence of your toilet accommodation.

Dramatize waste in terms of man hours lost. Dramatize sloppy work in terms of its interference with the work of others. On a production line, for instance, if one worker muffs a single piece, the work of a dozen, fifty or a hundred workers further down the line is also affected.

In all firm communications to workers use the first person "I." Don't weasel around with the pompous "we."

Remember that it is the very small things that rankle—and cost you much money. No soap in the lavatory can produce a million-dollar stop.

Tell workers lots about their company—tell them about new orders that have come in and what the stuff is going to be used for—why some orders were lost—tell them about new machinery being bought—tell them your plans and hopes.

If you are working three shifts a day, name the shifts. One war plant calls the various shifts Churchill, Roosevelt and the Stalin shift. Name the aisles in your plant with war names.

Don't waste money on a personnel manager if you regard him as a deputy under-assistant to your plant foreman. He isn't worth five cents a week to you unless he can report directly to the head of the company and freely discuss company policy with him and freely criticize.

Telephone Statistics Explain Any Delays

Statisticians of the Bell Telephone Co. recently turned up some surprising statistics.

They announced that construction of a corvette involves 50,000 telephone calls, both long distance and local, and that 12,000 calls are necessary during the building of a bomber.

They also produced the information that a machine gun in action for four minutes uses as much copper as it takes to make a mile and a half of telephone wire.

These statistics were offered to let the public know why it sometimes takes longer now than it formerly did to complete a long distance call, and why Canadians have been asked to "save words and wires for the war."

Bell Telephone now has 915,000 phones in service, and in spite of restrictions the number is climbing steadily toward the million-mark. At the same time the number of calls is also increasing, about 6.8 million being handled daily.

Indicative of the part the telephone plays in the war effort is the fact that at Ottawa, telephone service has doubled since 1939.

Where there were 2,000 telephones on the government exchange before the war, there are now more than 4,500, and 2-8211 — the government exchange—handles 75,000 incoming, outgoing and inter-departmental calls daily.

Teamwork Essential In Modern War

Teamwork means much more in this war than it did in the last. The new science of fighting demands it at every turn, and today small compact units of fighters work together, timing their movements like the players in a well-trained hockey or football game.

Teamwork is regarded so highly in the Air Force that every effort is made to keep together all crews or fighter pilots who have trained together. Whenever it is possible, groups are sent together from the time they enter training school until they are bombing Germany or meeting Germany's fliers in the air. Brothers are kept together if they enlist at the same time. So are boyhood chums. This practice, created by wise experienced leaders, has already justified itself.

In a big bomber everything depends upon smooth co-operation between all members of the crew. Although flying has become a very scientific activity, in which all sorts of instruments and other mechanical aids are utilized, the human element is still an extremely important one. When the bomber is over the target, the load of responsibility shifts from the pilot to the bombardier. Actually, no matter what the rank of the pilot is during this critical moment when bombs are being released he is working for the bombardier and must carry out his orders implicitly.

Machine Tool Makers Have Vital Function

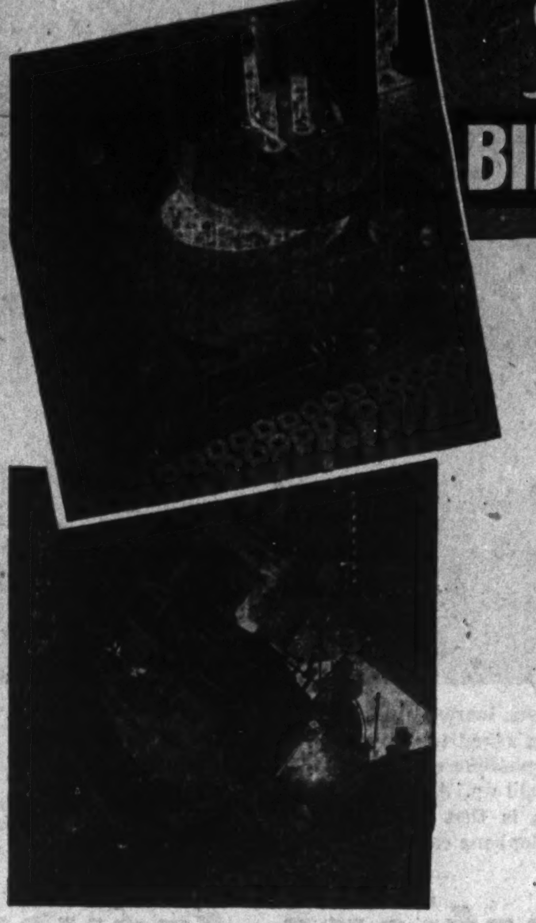
What's behind the man behind the man behind the gun?

The answer to that one, according to Canada's Director of Public Information, is the man who makes the machine tools with which the guns are produced.

He pointed out in a recent address that Canada's munitions industry started literally from scratch. Before a single plane, tank, or gun could be made, tools and gauges and machines had to be constructed.

"In other words," he said, "in the beginning there was nothing but raw materials — solid chunks of metal — and then there were machines and more machines and finally the finished product. It sounds like a nightmare, and for production men and engineers and all those concerned in building a new industry, it probably was just that." Machine tools, he explained to laymen, are just what their name implies—machines that act as tools. They work metals to different shapes with fine precision and accuracy.

"Machine tool builders are mighty important people to industry," he said. "They are highly specialized workers whose knowledge and craftsmanship are vital to good production. You see they have to take time and care to turn out machine tools. Their work is fantastically precise. An error of a thousandth of an inch in the machining of a gun barrel would ruin it and destroy thousands of dollars of good material and careful manufacture. Faulty machines, just slightly not true, could make such an error. But our machine tool builders are capable men."



ACCURATE CONTROL IMPROVES QUALITY

Burlington

BILLET STEEL SECTIONS

Electric furnace at Burlington Steel Company enables closer melting and refining control of steel. Impurities from fuel are eliminated and stringent tests taken throughout the heat guarantee adherence to customers' specifications. Rolled in wide range of bars and sizes, Burlington quality Billet Steel plays a vital part in war production.

THE PICTURES ILLUSTRATE:

(Top) Opening furnace preparatory to charging.
(Lower) Furnace tilted for pouring heat.

BURLINGTON STEEL CO. LIMITED
HAMILTON - ONT.

Low Grade Tin Ore Gets New Treatment

A new electro-static method for separating tin from low grade ore has been developed in the United States by the Westinghouse Electric Co.

In this process the ore is ground into particles. The particles are dried, then poured on to a rotating drum and given charges of high voltage electricity.

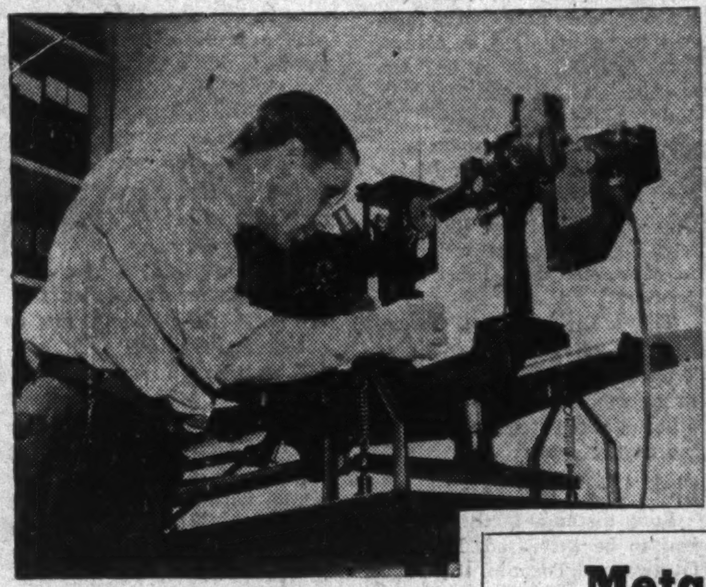
Because the tin particles are good conductors the charges race through them quickly and they fall off as the drums complete half a rotation. Other material, still magnetized, clings to the drum until the second half of the rotation, when oppositely charged wires pull it off.

War Speeds Output Of Rare Elements

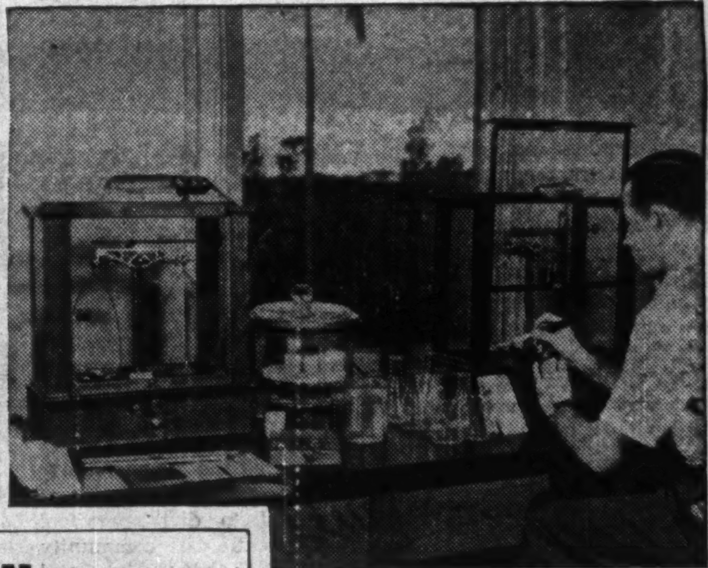
War has speeded development of a number of rare elements, some of which were only names in the atomic weight table.

For instance, every shell fired in this war uses fulminate of mercury for detonation. Zircomium powder is an ammunition primer. Rhodium plate goes into reflecting material for army signalling. Tracer bullets and shells for night firing have been made from a special alloy containing cerium elements.

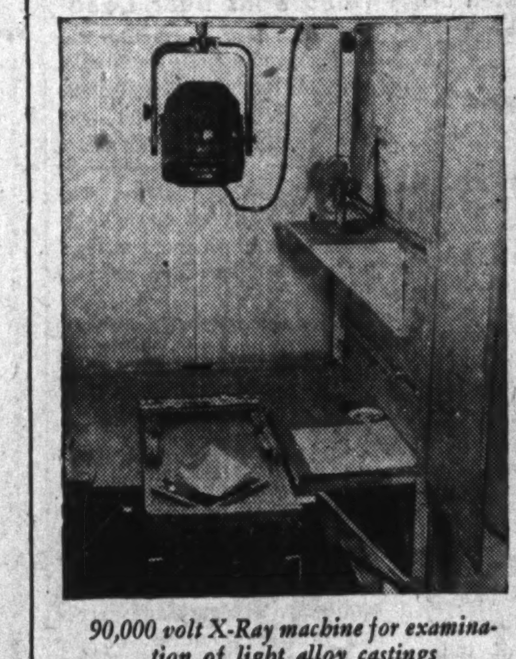
Canada's contribution to the metallurgical and chemical industries in rare metals now comes chiefly from by-products production.



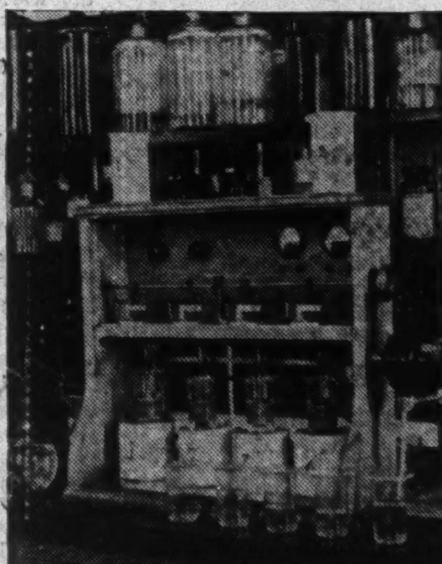
Microscopic examination of metallic structures



Control apparatus used in quantitative analysis of metals



90,000 volt X-Ray machine for examination of light alloy castings



Special apparatus for the electrolytic analysis of metals

Furnace for experimental heat treatments and routine metal analysis

Polishing of a metal specimen for microphotography

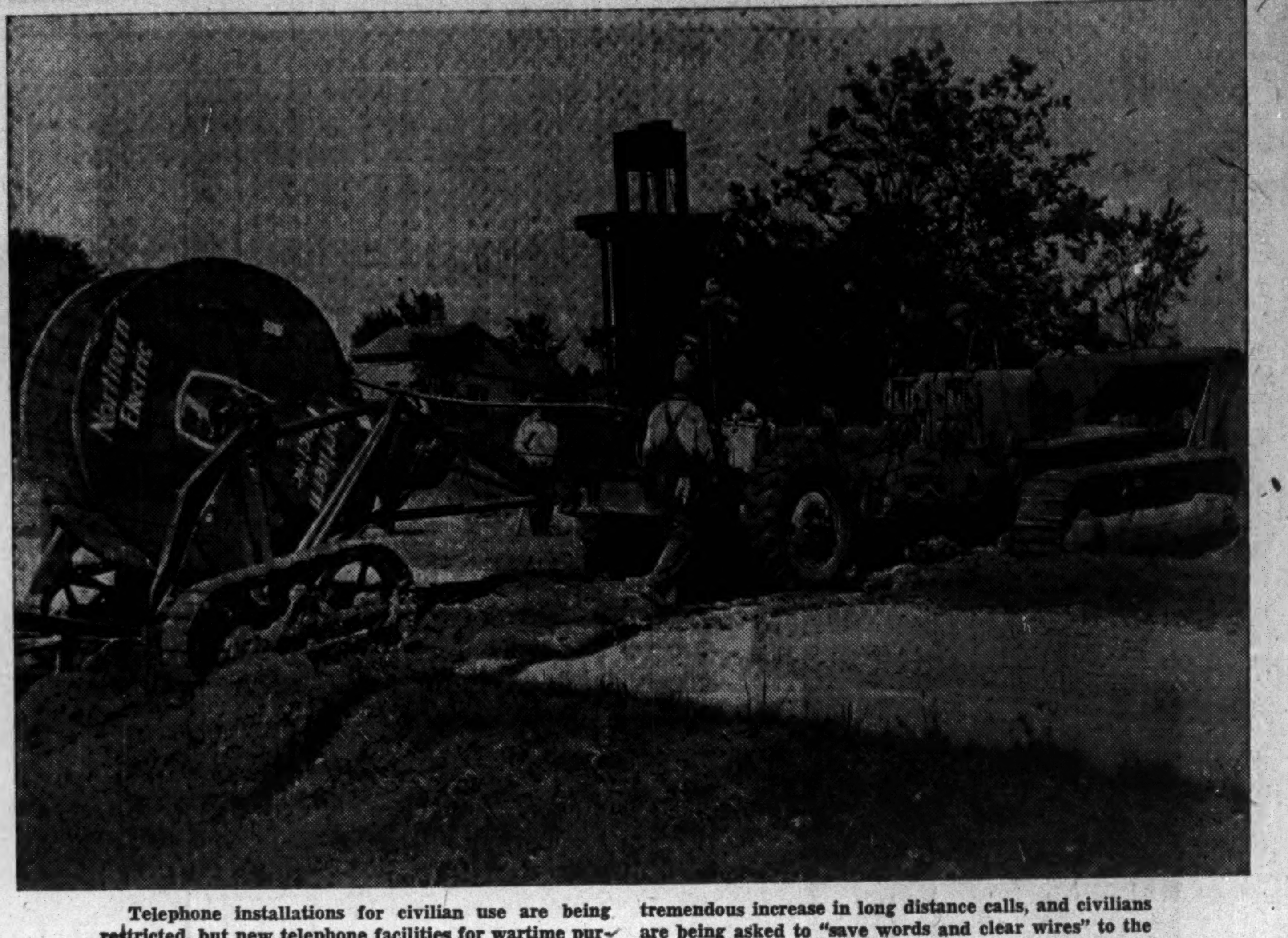
Metallurgy On the March

In contrast to the casual foundry methods of other days, the testing of castings for defects and the control of quality are now exact sciences assuring finished products of full dependability.

Because of the indispensable part these castings play "on active service" today, the utmost in dependability is vital.

Science, skills and experience assure the performance of "Mitchell-Made" products.

THE ROBERT MITCHELL COMPANY LIMITED
Foundries: ST. LAURENT, P.Q. 1851 - 1941 Factories: MONTREAL, P.Q.
"Specialists in the Casting and Fabrication of Modern Alloys"



Telephone installations for civilian use are being restricted, but new telephone facilities for wartime purposes must be rushed into service. Here a tractor train is seen plowing long distance telephone cables directly into the ground—a process which eliminates poles and saves manpower. Wartime activities have brought a tremendous increase in long distance calls, and civilians are being asked to "save words and clear wires" to the greatest possible extent so important war business may not be held up. An estimate by Bell Telephone Co. statisticians is that construction of a corvette involves 50,000 telephone calls.

Canada's Communications Govern The Pulse of War Production

Canada's war effort would be but a fraction of what it is today were it not for the most highly modernized and efficient communication system in the world.

Through the four great branches of communication—postal service, telephone, telegraph and cable, the material and human resources of the nation have been swiftly and effectively diverted from a peacetime to a wartime basis.

It has been a tremendous co-ordination task: linking industrial resources to new wartime plants—building up the army, the Empire Air Training scheme, the navy, governing the flow of war materials to plants, the dispatch of finished goods.

Communications were ready, as evidenced by the magnificent job they have done in the past two and a half years or more. Traffic arising from operations of the armed services and wartime industry has been handled expeditiously and without any appreciable lowering of the pre-war standard of service given to the civilian population.

In accomplishing this almost superhuman task, it has been necessary to improvise; to substitute materials; to reroute traffic; to enlarge facilities and, of late, to economize on civilian use of services so that every essential demand may be met.

A Nation's Nerves

Communications are the nerves of commerce and industry. War lays greater stress on their value than in peacetime. The demand is for speed, and even greater speed, combined with security.

The disruption of ocean steamship services; delays in overseas deliveries; changing railway schedules; heavier volume of traffic and falling off in personnel due to enlistments, etc., have not interfered unduly with the highly efficient service offered by the post office department.

Such wartime problems have been taken in their stride. Moreover the post office has gone a step farther and conceived new devices or extended former services to meet new conditions.

Air mail, for example, has been greatly speeded up. This form of delivery has been extended to new areas for military or other reasons.

Space in ocean vessels has been saved for more urgent needs by the institution of the air graph, a method by which letters are photographed on to micro-film.

This service has met with immediate response from the public wishing to keep in touch with friends or relatives in Britain. The original cost of air graphs, which greatly conserves shipping space, has been reduced sharply owing to the increased use made of it by the public.

Telephone Vital

In wartime the demand is for instant communication and it is here the telephone has played such a great part.

This spring, the Bell Telephone Co. of Canada started laying a new storm-proof underground long distance cable from Ottawa to Montreal. Next year it plans to complete laying it to Toronto.

Last July the telephone system in Port Colborne, Ont. was converted to dial operation. This was the last community in Ontario and Quebec—and probably in Canada—to have a dial system installed during the war.

These two incidents are signs of the times. On the one hand there is an unprecedented expansion of telephone facilities for the government, for the armed services and for war industries. On the other, there is a growing shortage of facilities for civilians.

Despite the restrictions on new telephones which came into effect last spring, the impetus of the wartime boom on telephone service is still being felt. At present there are more telephones in operation than at any other time in the history of the industry.

Record Traffic

The volume of traffic also is breaking all records. For example, during 1930, the Bell System handled a peak of 5.3 millions calls a day: at the present time it averages nearly 6.8 millions a day. In 1930, long distance calls touched 70,000 a day; now they exceed 81,700.

Since the beginning of the war Ottawa, heart of the nation's war effort, has doubled its telephone service.

Direct circuits have been placed in service from the capital to Washington, the Maritimes and the Prairies. Calls between Ottawa and Toronto have increased 200% and between Ottawa and Montreal 104% since 1939.

As in the capital city, so in military and industrial centres throughout Canada, more public telephones and booths have had to be installed in camps, barracks, and schools for the use of soldiers and airmen; telephones, teletypewriters, private branch exchanges provided for government, military and industrial offices; wires, cables, switchboards and even exchange buildings extended to serve the additional telephones.

That's the story at Barrie, because of Camp Borden; at Trenton, because of the central flying school; and at countless other centres, because of war industries.

Link Up Capitals

Long distance facilities have had to be increased. Between Ottawa and Toronto, the number of voice paths has been increased from 12 in 1939 to 35 in 1942, while between the capital and Montreal, the number has risen from 19 to 40. The Montreal-Toronto circuit group has risen from 9 to 21; and Toronto-St. Catharines from 12 to 19.

Service to the United States has had to be expanded. Since the beginning of the year, the Ottawa-New York circuit from 12 to 17; and Montreal-New York from 15 to 22.

In the face of these undeniable requirements, the telephone industry must still effect economies in its use of materials for many telephone materials are also war materials. Civilian requirements must give way to wartime requirements.

Subscribers have been asked to forego extension telephones for the duration and to accept party lines instead of individual lines. They are being urged to cut out all unnecessary calls, even local calls, and to make long distance calls out of business hours.

Hand telephone sets are restricted to absolutely essential uses. Desk and wall telephones are being rebuilt for further service. Not only are dial conversions out for the duration, but a new manual exchange is being opened in Toronto where full dial service has been in effect since 1936. Old plant is being reclaimed and re-used, while new construction work is confined solely to urgent needs.

Save Materials

By the use of carrier systems, whereby special conversions can take place simultaneously over one wire circuit, very considerable economies are being effected in the use of copper. Through installation of carrier this year on one line alone, over 500 tons of copper will be left free for other uses.

Besides stringent economy, there is substitution. Made possible through long range planning and unremitting research, a number of substitutions have been authorized for war materials in which a shortage exists. For example, enough aluminum to build more than 16 fighter planes or half as many bombers, is being saved each year in the Dominion's telephone systems.

As the shortage of materials becomes more acute, it may be necessary to get along with substitutes which cannot altogether replace the materials evolved only after years of research. For instance, iron has replaced a nickel alloy in the core of the telephone ringer magnet. Iron is less sensitive than this alloy, especially when ringers are located at the end of long lines.

Like the postal department, the telephone companies face the personnel problems due to enlistments. Under such conditions the time may not be far off when it will no longer be possible to maintain the present high standard of telephone service—to obtain a new telephone within 24 hours of the order being placed, to secure a long distance connection while the caller remains at the telephone.

Telegraphs Bear Load

Though less spectacular the telegraph and cable companies are vital factors in the successful prosecution of the war. Tens of thousands of telegrams relative to war activities are being exchanged daily. The great majority of these messages are of an urgent character and are accorded priority handling.

When the war broke out, the two major telegraph companies advanced overnight from peacetime operations to wartime action.

As a result of preparations previously made by the engineering departments of the Canadian telegraph and cable companies, additional circuit channels were readily made available. The message carrying mileage facilities of the Canadian National, for example, have increased from 398,000 miles in 1939 to 503,000 miles today. An equally impressive showing has been made by the Canadian Pacific.

Leased telegraph circuits have been set up between various government agencies at Ottawa and Washington.

Help to Military

Offices are being operated in military establishments throughout Canada for the expeditious handling of war messages.

A wartime communication system has been set up by means of which command headquarters can keep in constant touch with ferry pilots.

Many private telegraph lines have been constructed and teleprinter and Morse equipment installed to speed up the movement of telegraphic communications for a large number of industrial plants producing war materials.

Because of the special type of service which it provides, little can be said about cable operations. However, it stands to reason that with Canadian armed forces in Britain and the constant flow of supplies between Canada and Britain and other parts of the Empire, cable operations have been expanded.

Though the bulk of Canada's wartime communications are handled by the post office or over land wires, wireless also has its part to play in the war effort.

There is the highly important system of the Canadian Marconi Co. which links Canada with Britain and Australia through beam wireless. It is also the means of carrying overseas radio-telephone messages, a service which is now almost solely confined to official business.

Watch Weather

In addition wireless has a vital place in keeping isolated parts of the country in touch with civilization. This applies to defense and particularly to meteorological stations, many of which have been established in out of the way places.

At some several hundred stations throughout the country actual weather observations are recorded hourly and transmitted over the vast network of telegraph wires which link the airports and emergency fields from the Atlantic to the Pacific.

These observations of visibility, ceiling height, barometric pressure, wind direction and velocity, altimeter settings, and cloud types and amounts are placed on the network at 30 minutes past the hour in order that they may be broadcast over the radio range to planes in the air at precisely 40 minutes past the hour.

At intervals of six hours a synopsis of weather conditions is transmitted over the network for entry on the "forecaster maps" so that each station can fill out a complete weather map four times daily. In addition, six hourly pilot balloon observations are taken at selected stations, indicating the strength and direction of the wind at various levels. This information is transmitted for the use of pilot personnel in arranging flight plans.

Service is Unlimited

There are scores of other ways in which communications are helping the war effort and, at the same time, taking care of civilian needs. There is directional-finding for both aircraft and ships; radio-locaters; the dissemination of news by radio to occupied countries; mobile radio and telephone equipment for the armies in the field; radio-wireless on naval vessels and aircraft.

Though the communication facilities have been heavily taxed by wartime needs, they have by no means reached the limit of their capacity. The telegraph and cable companies still have a surplus of equipment to enable them to handle a larger volume of business. Wireless facilities are still ahead of demand. The Postal department is hard put at times to cope with the problems arising from war conditions, but still "the mail goes through." The greatest pressure on communications, of course, is in the telephone field. Even here, the pressure is by no means evenly distributed, but by and large, the telephone industry has reached a point where priority is given to those matters directly concerned with furthering the war effort.

MORE B. C. COAL

Coal production has been greatly increased in British Columbia. In the first four months of the year B. C. coal output amounted to 710,000 tons, an increase of more than 168,000 tons over the same period of last year. In the whole year of 1941 total production of B. C. coal mines was 1.8 million tons as compared with 1.6 million tons in 1940.

TESTS SCHEELITE

As a contribution to the war effort, the Manitoba Museum at Winnipeg has announced that it will test without charge all specimens sent in by prospectors who are searching for scheelite, the ore of tungsten. To do this the museum has installed the newest type of ultra-violet lamps for fluorescing minerals.

An Essential Wartime Service

. . . the L C SMITH Plan of Typewriter Conservation

Every business man knows that Canada's vast army of typewriters must "stay on the job" until war is won and normal typewriter replacements are again available.

In the meantime, take the best possible care of your present typewriters. The surest way to do this is through the L C SMITH inspection and repair service. Factory-trained and factory-supervised mechanics will put your typewriters in first-class shape—and keep them that way for the duration.

So to the thousands of L C SMITH owners, we suggest that you investigate what the L C SMITH plan of Typewriter Conservation can do in keeping your machines running at maximum efficiency, with the minimum of expense. L C SMITH service is available in leading Canadian cities. Our representative will gladly call.

L C SMITH & CORONA TYPEWRITERS
OF CANADA LIMITED
35 Front St. East, Toronto ELgin 4391
Branches and Dealers Throughout Canada

FOR INTERIOR BEAUTY, ECONOMY, AND UTILITY—SPECIFY

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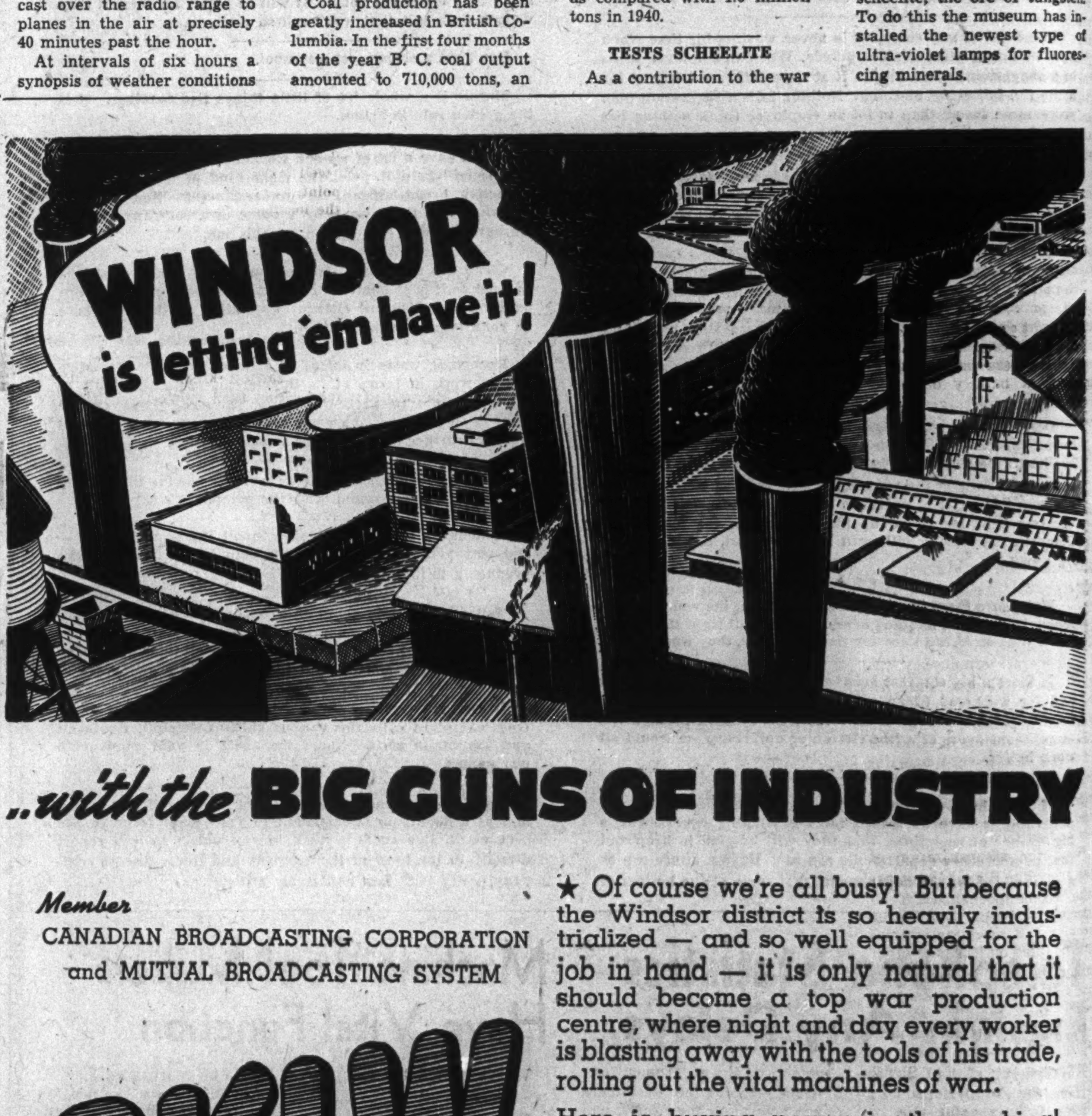
White Pine (Pinus Strobus) is the leading wood for construction since it can be used economically and to advantage in every part of a building — Used as panelling, Knotty White Pine graces the walls of many a fine interior.

WHITE PINE BUREAU
VICTORIA BUILDING OTTAWA


WINDSOR is letting 'em have it!

..with the BIG GUNS OF INDUSTRY

Member
CANADIAN BROADCASTING CORPORATION
and MUTUAL BROADCASTING SYSTEM

CKLW

5000 Watts — At your service
22 hours daily

J. E. CAMPEAU, Managing Director

★ Of course we're all busy! But because the Windsor district is so heavily industrialized — and so well equipped for the job in hand — it is only natural that it should become a top war production centre, where night and day every worker is blasting away with the tools of his trade, rolling out the vital machines of war.

Here is buying power in the making! Indeed, 20,469 Windsor auto workers earn $12.43 MORE per week than the average of $25.26 for all of Canada! The city's retail trade has shown increases up to 200%!

These are facts that experienced advertisers can't resist. Perhaps that's why so many of them are buying CKLW, the station that is in solid with Windsor listeners . . . the one station that effectively blankets both industrial Windsor and the rich Essex-Kent area . . . a station staffed to give you real merchandising service.

We think CKLW can do a job for you. May we talk it over?

WESTERN ONTARIO BROADCASTING CO.
WINDSOR LIMITED ONTARIO

R. C. C. S.—
Army Communication Service

From earliest times a system of communication has been an essential element in war. On it depends the ability to obtain and pass on information, direct troops, and to correlate the efforts of different branches of the forces such as infantry or artillery.

Without it an army would be be at a tremendous disadvantage in the face of another force well equipped in this way. In fact the efficiency of the communication system has sometimes been the factor which has determined the success or failure of an operation.

An outstanding example of this in modern times was the defeat of the Russians in East Prussia in the last war. Lack of efficient communications prevented them making the best use of the forces available against an enemy highly organized in that as well as other particulars.

Corps of Signals

Backbone of the army inter-communications is the Corps of Signals which is responsible for all inter-communication except postal, right from defense headquarters, or the war office, at home, to the infantry battalions or corresponding field units of other branches of the army.

It provides for the army the service given the civilian community by the telephone and telegraph services. This it does by means of wire or cable telephone and telegraph, wireless, radio, dispatch riders and even the visual methods of telegraphy including lamps and the old semaphore system with flags. The latter two methods are not in common use now but are still part of the available signal service.

The Signal Corps is responsible for the signal service through all its different branches, not only in operating but as regards installation and maintenance as well.

Its personnel includes telephone operators, telegraph operators, wireless operators, dispatch riders and construction and maintenance staff. Behind these is a battery of clerks handling the messages to be transmitted.

Technical Personnel

Accordingly, because there are few jobs in the Signal Corps that are not more or less technical, about 98% of the personnel are tradesmen of some kind. It is estimated that there are about 58 trades represented in a complete signal unit.

In general terms, they include clerks, electricians, fitters, foremen of signals, mechanics, carpenters, draftsmen, linesmen, operators of all kinds of telephones, telegraph, wireless, etc., welders, dispatch riders, driver-mechanics, storemen, as well as cooks, butchers and so forth.

With the mechanization of the army, the Signal Corps has also become mechanized. Telephone, telegraph and radio sending and receiving stations are mounted on trucks or other motor vehicles in order that the signal service can keep up with the rapidly moving branches of the mechanized army. Accordingly, many of the personnel of the Signal Corps have to perform two duties, such as being able to set up communication lines or operate a key or switchboard, and drive a vehicle. Operators may be called on to operate different kinds of switchboards and even have to send messages by flags (semaphore) or lamps, the heliograph system.

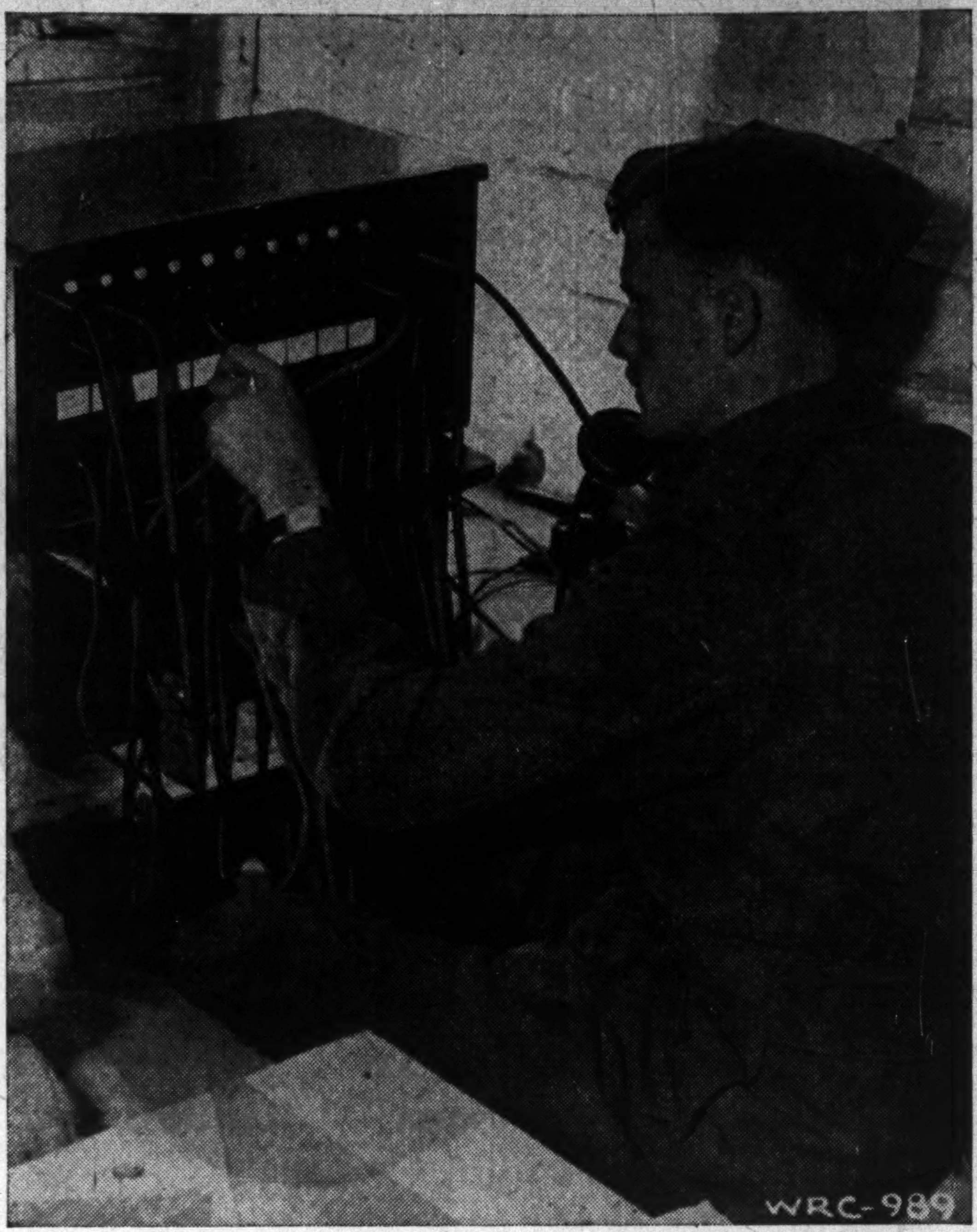
The maintenance force must be equipped to lay lines varying from the lightest of steel cable to the heavy lines of civilian commercial companies which were used in peacetime. They must know how to install, maintain and repair the various types of switchboards, sending sets and receiving sets, and put their finger on the cause of any breakdown or interference in the service.

Accordingly a member of the Signal Corps must be a man of several parts.

Called "Signalmen"

He is called a "signal man" not a "signaller."

Members of the Signal Corps are emphatic on this point. They point out that the term signal man is a rank like driver, gunner or sapper. He is a member of the Signal Corps and should be expert not only in operating but in organizing and installing a signal system. A signaller may be a private in an infantry battalion or some other unit who, having been trained in the Morse code or semaphore signalling, has been appointed to do regimental signal duty.



One of the outstanding features of modern warfare is the highly developed inter-communication system, which enables all parts of the army to keep in touch with each other. Though an artillery battery is located well to the rear, out of sight of its target, an observer at an advanced observation point, can direct the fire.

The picture shows switchboard operator reporting the location of hits scored by his battery.

Photo—Public Information.

Because it is so closely tied up with operations, the work of the Signal Corps comes under the "G" or general staff branch. Its chain of organization begins at defense headquarters (in the United Kingdom at the War Office) and goes down through the army to the corps, to the division and then to brigades and from there to the headquarters of the battalions or corresponding units.

Signal Service

Its personnel does not operate beyond battalion headquarters. There the battalion signal officer and his organization takes hold and carries on. The two services tie in together and co-operate. But the divisional signals set the pattern for the regimental signal officer and his staff to follow. They speak the same language, use the same terms, and follow the same methods.

The way the signal service works is like this. Suppose the army wants something done. The message is sent down through the channel of communcations by the signal service to the battalion concerned. If artillery support is wanted the word goes to the battery. From there on the regimental signal service is responsible. It it is an infantry operation and the main body of the battalion is in an advanced position, the word must be passed on from battalion headquarters by runner or if there is telephone communications with the front line, by the regimental signal service. The same with the engineer field company, the supply columns or other regimental units. In the regimental area the regimental signal officers and signal service take over.

Know Organization

Because field units may change their locations and circumstances may alter, individual signal men dealing with all branches of the army must have a good idea of map reading. They must have a thorough knowledge of organization and the functions of the different arms and services such as engineers, army service corps, infantry, ordnance corps, artillery, etc.

The importance attached to this is shown by the fact that dispatch riders and switchboard operators must make 80% in tests of their knowledge of the organization of the army.

Officers for the most part are men with technical training, such as electrical engineers, or university graduates in some other branch of science. A relatively high standard of education, as far as possible, is required in the personnel of the other ranks also.

In addition to this, as members of the Signal Corps may often be in possession of confidential information, it is desirable that they be thoroughly trustworthy and discreet.

Able to Fight

But the signal man has to be prepared to fight as well as give communication service. In the rush and swirl of modern mechanized warfare the field signaller might easily be brought into direct contact with the enemy. Accordingly, the signal man is trained to handle the ordinary weapons efficiently. He must take the prescribed period of basic training established for all arms.

The date of the first army signal service is lost in antiquity. The smoke rings of the North American Indians and the tom-toms of the African tribes are probably among the earliest kinds of communication used in warfare. History records the use of smoke rings by the ancient Picts and by the Romans. At Marathon the reflection of the sun on the shields of the Greek forces was used to send messages over long distances. Beacon fires were a common means used in England, this being the method taken to send word of the coming of the Spanish Armada in the reign of Queen Elizabeth.

It was not until the Battle of Waterloo, however, that the real development of a signal service began. At Waterloo, it was estimated the front was not more than two miles. Wellington from a raised piece of ground could see almost the whole of his army. He could order the whole line to advance, with some chance that a substantial part of the front of his forces could actually hear the command. When word had to be sent to the more distant points it was done by runner or mounted courier.

With the development of war on its modern scale, where operations may extend over a front of many miles, the need of some different method of passing and obtaining information was apparent.

Distance Signalling

The first method of long distance signalling used was the semaphore. Introduced in civilian circles at first in England, the army was slow to take it up. However, it did so in the first quarter of the 19th century. By 1854 the telegraph was in use. It was stated that in the Crimea, General Raglan used it to communicate from his headquarters with troops in the front line trenches. The casualty lists from the Crimea were also sent home by telegraph.

From then on the use of the telegraph in army work grew. In the Prussian campaign against Austria in 1866 it was an important factor, its use being extended more and more in succeeding wars. Development of the telephone brought that medium also into common use while the old system of flag semaphore signalling and also the use of the lamp continued as a standard form.

In the war of 1914-1918 telegraph and telephone were much used. The older types of flags and heliograph or lamp signalling fell into the discard. Radio and wireless were just coming into use. The whole army area was finally a network of telegraph and telephone cables and wires which, despite the great mass of detail involved, operated smoothly and without confusion. Regimental signals laid wires right up to the infantry battalions in the trenches, enabling them to request reinforcements, supplies or artillery support on an instant's notice.

In the present war radio and wireless are more used than in the previous war. In some cases wire or cable communication is preferred as less liable to interception by the enemy. Messages sent by wireless are usually in cipher.

The development of the Royal Canadian Corps of Signals is comparatively recent. It is just 21 years since it came into being as a distinct corps in Canada and Great Britain.

The move to make it a distinct corps was a natural development following the recognition of communications as an important part of army work, just as vital as the supply of ammunition or food to an army.

Accordingly the Royal Canadian Corps of Signals, despite its youth as a distinct corps, is recognized as one of the most important parts of the forces.

Hog Bristle Shortage Makes Job for Horses

"The horse's tail has its place in the Canadian economic scene," according to L. S. Hewes, director of brushes, Wartime Prices and Trade Board.

Canadian horsehair, he says, is the best in the world as a substitute for hog's or Chungking bristle, so named because the animal providing the bristle is bred in the mountainous regions surrounding Chungking, China. Resembling the wild boar, Chungking pig is less edible than our domestic variety, but its bristle for paint and shaving brushes is unbeatable.

How to supplement existing supplies of this bristle, 90% of which came from China through the Burma Road, has been a matter for experimentation and manufacturers have produced a brush using up to 50% horsehair that is proving most satisfactory and durable. This combination of Chungking bristle and horsehair gives a good flow of paint.

Previously, horsehair has been used for floor brooms, polishing brushes, clothes and hat brushes and for industrial machines. In 1941, Canadians used 177,000 pounds of horsehair and exported large quantities to be processed in the United States and resold to Canada. This year the estimated needs are 400,000 pounds to be used in the manufacture of brushes, principally paint brushes used in every phase of war production.

"Prairie farm horses provide the finest horsehair," Mr. Hewes explained. "Combings of live hair make bristles superior to those from the dead carcass." The exceedingly fine bristle of the domestic hog can be successfully utilized in the shaving brushes and some fine paint brushes.

Pyrites Plentiful

Canada's pyrite industry is growing rapidly. Pyrites is produced as a by-product in the treatment of copper pyrite ores at the Aldermac and Noranda Mines in Quebec and at the Britannia Mines in British Columbia. There are said to be ample supplies of pyrites to meet present demands.

Business Machines
Go on Active Service

Originally designed to remove drudgery from recording and accounting procedures, business machines have since made possible the performance of many new services in the development of industry, trade and commerce in North America.

As is the case with manpower, the capacity of each business machine must now be *fully occupied* in Canada's war effort. Much has been done in this direction for forward-looking management.

Much more remains to be done. Service Men and Systems' Representatives of all office equipment organizations can offer helpful suggestions to this end, because they are conversant with methods adopted in many businesses, whereby business machines are being put to greater use now than ever before.

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At Renfrew, we are grateful for the important part we are playing in this grim conflict. Each month — since that fateful day in 1939 — this organization has been doing a larger and larger share in the job of providing the tools of war. And, we will continue to give unstintingly of our labors and resources until that great day when we can join other Canadian industrial organizations in providing the tools of peace — and again contribute to the pleasures of democratic living.

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Radio Broadcasts For Victory

Proves Powerful Instrument in Building Morale for All Fronts

Canadian radio has come of age with the war.

Today our 85 long-wave and 18 short-wave stations, scattered across the nine provinces, are a potent force in guiding public opinion and strengthening morale.

Of the 85 long-wave stations, 75 are privately owned. The CBC owns 10. Eight of the short-wave stations are privately owned.

While practically all the private stations are linked with the CBC network and carry a quota of national programmes, at the same time they perform a valuable service in their own sphere, originating programmes for their communities, supporting community enterprises, broadcasting community doings. Their facilities are open to leaders of their own districts. In many respects, their functions closely parallel those of local newspapers, and, like these newspapers, they depend on the local advertiser for much of their revenue. Quite a number are owned by or associated with newspapers. A large proportion put local news bulletins on the air. They have an important, an indispensable part, in the radio picture.

Government - owned radio likewise has a vital part in the set-up, originating and broadcasting, through its own and private stations, programmes designed for the nation as a whole. Of these programmes, the one which has the largest audience day in and day out is not music, not comedy, not drama. It's news.

"This is the national news bulletin — a summary of the day's news."

Each night at 10 o'clock, Eastern Daylight Time, millions of Canadians hear those words. In hundreds of thousands of homes, from Victoria to Sydney, conversation stops and people turn toward their radios.

In the quarter hour that follows the familiar "sign on," an announcer in Toronto reads 2,100 words. These words—set in type they would make little more than two newspaper columns—give a resumé of developments on all fronts, and command a larger audience than any other Canadian broadcast.

"The night national" is the daily highlight of one of the main wartime services of the Canadian Broadcasting Corp.

Reading it is the assignment of Lorne Greene, CBC announcer, who usually spends two hours in preparation before he goes on the air, underscoring phrases which require emphasis, memorizing pronunciation of foreign names, studying the text. A network of CBC and private stations carries his broadcast to every part of every province.

Greene's French-Canadian counterpart is Georges Lambin who, from Montreal, gives a French version of the same newscast. This goes out by long and short-wave, the short-wave being beamed to the north and to the prairie provinces.

War and Radio

The war greatly increased the importance of radio news and hastened establishment by the CBC of its own news service. Today more than 20% of all broadcasting hours are devoted to news, which claimed only 9.4% of programme time in 1939.

In its efforts the CBC was backed up whole-heartedly by the Canadian Press, the cooperative newsgathering organization of Canada's leading daily newspapers, and the British United Press, a news agency privately owned.

Press wires of both bodies were fed into CBC newsrooms to provide the basis for all radio bulletins.

Five Newsrooms

National bulletins of the CBC are written at Toronto, as are the Ontario regional bulletins. There are regional newsrooms at Halifax, Montreal, Winnipeg and Vancouver.

"Don't be dull but don't be sensational." That sums up orders under which CBC editors work. Each has posted on his wall a list of general directives.

"Accurate news must be the first consideration . . . News should be not handled so as to create alarm or panic . . . CBC editors should not editorialize, speculate or predict . . . Domestic political news must be treated with absolute impartiality . . . Voice inflection (should not) be allowed in any way to color news . . ."

Thus go the directives. The second—"News should not be handled so as to create alarm or panic"—is a reminder that radio, carelessly used, is a dangerous weapon. A report of a fire, broadcast in an excited voice by a novice announcer, caused the worst traffic jam in the history of a western city a few years ago when most of the people in town jumped into their cars to rush to the scene. Remember what happened when Orson Welles broadcast the Martian invasion with too much realism? In Canada there was the broadcast of the Moose River disaster. Radio did such a vivid job that half the people in the country stayed all night at their radios growing more strained and exhausted. The same technique, applied to war news, would be disastrous.

However, there is no effort to "tone down" war news or minimize serious reverses. This would be equally disastrous, since public confidence would be undermined when the truth eventually came out.

Level-headed editor-in-chief of the CBC news service, who puts its policies into force, is D. C. McArthur, veteran of the last war, graduate of Ontario Agricultural College, and son of the late Peter McArthur, noted Canadian writer and philosopher.

London Calling

Besides its own news, the CBC carries on its network British Broadcasting Corporation news short-waved from London twice daily, and the half-hour BBC newsreel which includes eyewitness accounts from the battlefronts, actuality broadcasts, interviews and talks.

Other stations may broadcast news acquired from private agencies, subject to certain restrictions as to the nature and extent of advertising which may be associated with sponsored news.

On Britannia Heights, near Ottawa, there are two diamond antennae directed toward Daventry, England—the point from which British broadcasts are aimed at North America. Whenever you hear Big Ben and "This is London Calling" the programme has been picked up by these antennae at the short-wave receiving station of the CBC.

Canada's Air Ears

One of the strongest in the world, the receiving station has a second function, separate and apart from that of picking up British broadcasts for Canada. It is here that a staff of trained linguists listen day and night to foreign broadcasts, sifting claims of foreign announcers — particularly those of announcers in enemy or enemy-occupied countries. They pass newsworthy bits of information to the CBC news service. Other information goes to the government and the general staffs of the armed forces.

When Axis propaganda is strongly slanted at one objective, it is often intended to cloak something happening elsewhere. The "radio ears" of Canada, the U. S. and Britain have "gray matter" in between them, with the result that the intended screen has frequently served to tip off the United Nations when interpreted in terms of the Nazi mentality. Skilled psychologists co-ordinate and study the trends of enemy broadcasts.

So far the CBC has not moved into the front line of the battle of the air waves, to any extent, but has left it to the BBC to beam to all countries in all languages programmes which tell the facts of the war and the real aims of Hitler, Mussolini and Hirohito.

We have no "Col. Britton," no "V for Victory" crusade to arouse the enslaved people to revolt against their conquerors.

There are those who think we should have, and one suggestion, frequently made, is that we should take advantage of the bond between French Canadians and the land of their forebears, and make regular broadcasts to France.

Such broadcasts would offer few engineering difficulties. Due to an atmospheric quirk, although the CBC short-wave station at Vercheres, Que., is beamed westward, its backwash is often heard in France.

The station at Vercheres reaches the French in western Canada who are out of range of standard stations which carry French-language broadcasts. It also makes daily transmissions to Australia and New Zealand.

Canada has made a number of broadcasts to South American countries of late to promote Pan-American entente. There will shortly be a special programme for Brazil, whose people are to be taken on a musical tour of the Dominion.

For the Troops

We have also, of course, short-waved programmes to Britain in general and Canadian troops in Britain in particular. The British Broadcasting Corp. regularly carries programmes directed to the Old Country for Canadian soldiers by the Canadian Broadcasting Corp. These include weekly greetings from the folks at home, weekly news letters and sports broadcasts.

The CBC has Bob Bowman, special events commentator, and Arthur Holmes, engineer, stationed in Britain with a mobile sound unit. They do the rounds, making transcriptions for Canada. Bowman and Holmes landed with the first division and have been on the job since, keeping Canadians posted on the activities of their soldier sons, husbands and brothers.

During the last year, broadcasts have been made from the other side by 200 Canadian army formations, and 20,000 men have recorded messages home.

CBC programmes beamed short-wave or shipped in disc form to Canada as regular features are "Canadian Regimental Concerts," "Messages from the Beaver Club," "Jean Baptiste s'en va-t-en Guerre," "With the Troops in Britain," "Regimental Bands of the Canadian Army" and "Canadian Pipe Bands."

In addition news events, such as inspections, have been broadcast as they happened, and there have been special broadcasts like "Christmas Card" and "Torch of Victory."

The number of "war broadcasts—broadcasts with a definite purpose related to the war—has been steadily growing. Last year such programmes took more than 1,000 hours of radio time—twice as much as in the previous year.

There have been broadcasts to sell victory bonds, to sell war savings certificates, to stimulate recruiting, to emphasize the need for salvage, to swing public support behind the price ceiling, to tone up general morale, and to explain to Canadians moves which had them alarmed and puzzled.

Ration regulations, income tax increases, selective service regulations—key figures in the national administration have taken to the air to discuss these and other subjects with the citizens of the nation. Radio has this beauty—that it lends itself to an informal technique, so that, in effect, a leader can have a friendly, casual chat with the people, calling on them in their own homes.

Addressing a large meeting, it's impossible to say — "What would you do yourself if you had this problem to meet?" Talking on the radio, it is not only possible but effective. Several of our Canadian public men have successfully adopted the "man-to-man" approach used so skilfully by President Roosevelt in his famous "fireside chats." Mr. Ilsley is good at this. He has a natural voice with a plain, friendly quality. Donald Gordon, chairman of the Wartime Prices and Trade Board, has a similar radio talent.

Quite a lot of our domestic radio propaganda has been directed at the industrial front, dramatizing the role of the factory worker, and driving home the point that the lives of the men in the forces depend on him—or her. Surveys indicate that this effort has not been wasted, although it is, of course, impossible to get any idea of what actual influence it has had on speeding production, curtailing labor trouble and discouraging absenteeism.

The most intense campaigns on the Canadian air have been linked with the Victory Loan drives. They have been marked by programmes as distinguished as any ever broadcast in the Dominion. Stars of stage and screen, authors, journalists, celebrities of all kinds, have freely contributed their services, to supplement the best radio talent in Canada.

Farm Front

Radio has not overlooked the farm front and directs programmes to every rural community across Canada. There are five regional farm broadcasts—one for the Maritimes, one for French-speaking Quebec, one for Ontario and English-speaking Quebec, one for the prairie provinces and one for British Columbia.

These are on the air daily. In addition there is the National Farm Radio Forum, which discusses the problems of agriculturists of the country as a whole and has scores of thousands of listeners. A programme of rural adult education, this has resulted in the formation of "listening groups" across the country, who gather to listen to the broadcast and then to talk about it.

A lighter feature, heard Sundays, is "Neighborly News," in which commentators in the various regions chat about the items in the weekly rural press, hand out congratulations to nonagenarians who have had birthdays and to people who have had golden wedding anniversaries, and philosophize on the small but interesting occurrences of their districts.

All this has served to build a closer bond between farm folk in Canada, to improve their farming methods, and to keep them informed of markets. It has also made it easier for the government to get them to increase production along certain lines, such as hogs for Britain.

Radio in Schools

So widespread are the activities of the CBC that they cannot all—or nearly all—be described here. One which should be noted, however, is the use of radio in the schools — a movement which is becoming increasingly prominent. Regular broadcasts for schools, prepared by experts, supplement the work of teachers. Dramatizations of history, geography, works of literature, and dialogues on art, music, science and travel, provide the means of impressing a lesson on young minds in a vivid way. Among the educational broadcasts have been "actualities" from industrial plants, airports, ships and places of historic interest.

At the present time the CBC has 35 hours of daily broadcasting augmented by six hours of daily commercial network—a total of 41 hours every 24. This paradox is explained by the simultaneous broadcasting of different programmes in different regions.

Of the programme hours originated by the CBC more than 90% are from the five main production points, Montreal, Toronto, Vancouver, Winnipeg and Halifax. Last year Montreal and Toronto originated 61.8% of all programmes. Montreal led because in addition to some English-language programmes, all French-language programmes are produced there.

In 1941 about 2,349 programme hours originated in the U.S. and were carried on an exchange basis, while nearly 1,000 programme hours originated in Great Britain.

Hobbyists Help Canada

Hobbies are proving valuable in Canada's war effort. For instance, lads in their teens, students of Central Technical School in Toronto, are making the scale models with which airmen are taught to recognize Spitfires, Hurricanes, Junkers dive bombers, Messerschmitts and other fighter and bomber planes. These models, made by model airplane enthusiasts, are serving a vital purpose.

Many of the chemists and scientists who are carrying on the wartime research work and experimentation were boys who were fascinated by chemistry and made a hobby of it. Amateur yachtmen, and weekend sailors, with a love for the sea, are now serving in the naval forces.

Boys who once built model airplanes out of fabric and wood are to be found building airplanes in the DeHavilland factory where fabric on planes is used.

Perhaps the greatest number of ex-hobbyists who still follow their first love are radio men. In the Army, Navy and Air Force and elsewhere, many of the radio technicians were once wide-eyed youngsters who were thrilled by the squawks coming out of home-made radios.

Fliers Sharpen Aim On Shotgun Range

In the United States, skeet and trap shooting have assumed increasing importance in the gunnery training programme of army air fighters, and facilities for instruction and practice in these shotgun sports are fast being expanded.

It has been found that these sports train students in the art of swinging and following through on a target. The ability to "lead" the target, that is, to gauge accurately the distance the gun must be aimed ahead and over moving objects, allowing for both forward speed and bullet trajectory, is necessary for effective shooting.

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OF THINGS TO COME

War is won today at the machine and drafting board as well as on the battlefield. As the nation steps up its tempo of production, plans of things to come take shape and a new industrial Canada emerges. Steel plays a major roll in these great developments—and Hamilton Bridge with its army of experts on the job from planning room to fabrication, is being relied upon for complete, accurate construction service. These facilities now in Canada's front line will once again be yours to use when VICTORY sounds again.

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Base Metals' Flow Still Increases

Marginal Deposits Enter Picture as Total Effort Develops

Here are operators of the Royal Canadian Corps of Signals in the communications room at Ottawa, from which thousands of words are transmitted daily to Canadian army and key points both abroad and in Canada.

After the war there will be a most interesting story to tell about Canada's non-ferrous metal mining industry — the mines which turn out our nickel, copper, lead and zinc and the refineries which bring these metals to the practically pure state.

Shareholders will learn the new and much-increased capacity of their mines. They will learn what has happened to ore reserves. They will learn how production was stepped up tremendously during the war, how management did not stint in its use of high grade ore reserves in marshalling resources for a total effort on the metals front.

Part of the war effort of the base metal mines is already well known. The base metal producers were the first to put their products under a "price ceiling" through contracts completed with the United Kingdom. The relatively low prices called for in these contracts—around ten cents a pound for copper and three cents a pound for lead and zinc—have meant a saving of many millions of dollars to the Mother Country.

But the contribution in increased production facilities and increased output on which little or no extra profit could be realized is perhaps still more impressive. Every base metal producer of importance in Canada is today turning out more than at the outbreak of war. All our mines will continue doing this as long as labor, supplies and ore reserves are available.

Output Value Rises

From dollar value statistics released on the combined output of nickel, copper, lead and zinc, it is possible to state that combined production of these metals has been steadily upwards since commencement of the war.

In 1939 we turned out a total of $136.3 millions of these metals. The following year—the first full year of war—output showed a sharp rise to $155.9 millions.

In 1941, Canada's total mineral production reached a new all-time high of $553.9 millions, up 4.6% from the 1940 figure, with base metals production up 6.6% to $166.2 millions.

Dominion Minister of Mines Thomas A. Crerar thinks mineral production this year will reach $600 millions. With the emphasis on base metals rather than on gold now, it seems base metal production should at least maintain its rate of increase in 1942.

It does not take much imagination to predict that production of these four base metals—nickel, copper, lead and zinc—will be even higher in 1943. It will be very surprising if they are not. Under the Hyde Park agreement, Canada undertook to step up production of certain base metals, nickel in particular, to meet growing United States requirements. International Nickel Co. of Canada alone agreed to spend some $35 millions on this expansion, receiving a special tax arrangement for carrying out plant expansion which may prove of little value after the war. Other producers agreed to carry out similar expansion, although on a smaller scale.

Hudson Bay Mining & Smelting Co., the lusty Manitoba copper-zinc producer, has been working ahead year by year and is an important prospect for still greater production. Consolidated Mining & Smelting Co. at the end of 1941 was spending many millions on expansion of power facilities and increased production of lead and zinc would seem to be natural results.

New Phase Now

As the demands of war industries in the United States, the United Kingdom and Canada continue to increase, the base metal mining industry has entered another new and important phase. While Canada's base metal refining facilities are now working at peak capacity, the United States wants increased production of base metals even if these must be secured from marginal and sub-commercial deposits.

There is some suggestion that capital assistance will be given on an extended scale to increase production still further. Sales contracts with the United States Metals Reserve Co. will allow a high enough price to allow operation of mines which we would not think of operating ordinarily.

Boost Copper Mines?

It is understood that enlargement of four or five copper producers is in prospect as a part of the new programme and already $200,000 has been made available to Granby Consolidated Mining, Smelting & Power Co. to allow a 10% increase in the output rate at that mine.

Other possibilities for increased copper production would seem to be Hudson Bay, Waite Amulet, and Normetal. International Nickel Co. and Falconbridge Nickel should both show an increase in copper by-product output while Sherritt Gordon Mines is understood to have commenced production of zinc concentrates recently.

How far authorities in the United States and Canada are prepared to go to develop resources of marginal and submarginal mines is not yet known. The length of time and the amount of equipment necessary for opening up new properties are both important factors.

Aluminum Outstanding

So far we have mentioned only commonly known ferrous metals—nickel, copper, lead and zinc—on the basis of the rather incomplete information we have available. Besides these common metals, Canada is becoming an increasingly important producer of aluminum whose production is understood to be at least several times the pre-war rate.

Aluminum is not included in Canada's mineral production as bauxite, the present commercial ore of aluminum is not produced in Canada. But Canada has extensive deposits of nepheline syenite and anorthosite—square miles of the latter—and a new extraction process, on which engineers are completing the final details, may mean eventual turning out of aluminum from a domestic raw material.

Power the Key

Electric power is a most important element in turning out aluminum and that is undoubtedly a big factor in Canada being called on to increase its output so substantially. The fact that Canada has large quantities of relatively cheap hydro-electric power is likely to mean that Canada's new aluminum-producing capacity will not be of the "white elephant" variety similar to much of the new and temporary aluminum capacity being installed in the United States.

Increased capacity in the aluminum industry in Canada may mean lower costs and it is noteworthy that the trend of the price of aluminum has been downward since the beginning of the war.

Magnesium is a relatively new metal for Canada as it is for most of the United Nations. Germany was apparently the first country to turn this metal out on a large scale and research in the United States and Canada has now revealed several processes from which metals can be turned out from plentiful raw materials. In the United States, sea water, magnesite and brine from wells are being used among other things as raw materials.

Dominion Magnesium Co., Canada's first producer, is scheduled to commence production any day now and will turn out the metal from dolomite of which there are large supplies in Canada. The company will use its own ferrosilicon process.

Consolidated Smelters has also developed a new process in conjunction with United States interests and it is claimed to be remarkably efficient. The west coast metals producer is turning out magnesium experimentally and is considering embarking on production on a larger scale.

A Canadian company using the English Blackwell-Turner process plans to erect a plant in Ontario. It is understood serpentine—of which there is an almost inexhaustible supply in Canada—will be used as the raw material for turning out the light, white metal.

Electrical Appliances Must Last Duration

All electrical appliances should be made to last as long as possible, and they should be inspected regularly. That is what the Director of Public Information recently told Canadians.

"This is all part of your war effort," he said, "and if you are the sort of person who takes an electric iron and proceeds to do everything with it except throw it at Hitler, why then you are really throwing it for Hitler."

He pointed to the part which electrical appliances play in the life of the average Canadian.

"We probably would not lose any money if we were to bet that most of you had toast made on an electric toaster and coffee either out of an electric percolator or made on an electric stove for breakfast this morning," he said. "If you are a businessman you probably whizzed off to the office in a hurry satisfied that you had a nice pleat in your trousers—put there by an electric iron. If you are a business girl you may have twisted up those few stray locks with the curling tongs before you started for the office."

Things which Canadians took more or less for granted were electric toasters, washing machines, electric grills, electric heaters, electric percolators, curling tongs and electric fans. The manufacture of each of these has now been banned.

"After all," said the Director of Public Information, "these are luxuries which we have come to regard as necessities, but they are not such necessities as the planes, tanks and guns which are needed for our fighting forces. The metal and labor which goes into our irons, our toasters and our fans will now go into the ever-increasing manufacture of munitions."

Refrigeration Experts Assist Air Force

How cold is it at 20,000 feet? At 40,000 feet? How will flying clothes, gloves, oxygen equipment, goggles, windshields, and instruments react to low or swiftly changing temperatures and pressures?

Canadian refrigeration experts have made it possible to answer these questions without leaving the ground—this by developing "cold rooms" in which are duplicated all atmospheric conditions as they exist in a bomber soaring from ground level to 40,000 ft., where temperature drops to around 70 degrees below zero.

Although these "cold rooms" are not used for making regular tests on individuals in training, a certain amount of information and physiological reaction to cold and sustained severe conditions has been secured.

Another outstanding service of the refrigeration industry has been to equip blood banks in military hospitals. Incidentally, refrigeration equipment has been found essential in many gauge rooms in Canada, where work is measured in tens of thousandths of inches and a steady temperature is vital to accuracy because of expansion and contraction.

A project carried out by one refrigeration firm was construction of a low pressure unit for testing aircraft radio equipment.

Master Measuring Pieces Improve Our Munitions

Cartridges used in the machine guns of the Air Force and Army, as well as in the rifles of our armed forces, are made to very definite measurement and it is vitally important that all of the cartridge plants are turning out the same accurate products.

Obviously a set of standards must be used in every plant that will ensure that each one turns out a cartridge that will fit any gun designed for that particular cartridge. Gauge blocks provide these standards. They are pieces of metal polished to very exact specifications, and they are used as master measuring pieces.

All the plants concerned have identical gauges for a specific job.

Measurements are taken at all stages of manufacture. Gauges are used throughout the making of the brass cartridge case. The case starts out as a small piece of brass, about the size of a big penny and as thick as two pennies together.

It requires 17 different punching operations to draw that piece of brass into a tube and operation has to be gauged. Most of the gauging work in the manufacture of cartridges is done by special gauging machines, entirely automatic.

The weight of the bullet which goes into the cartridge case must be checked. The amount of powder must be carefully measured. Of course, through all the operations, any article that doesn't conform to required standards is discarded.

The records show that because of gauges, Canadian rifles and machine guns are better than they were a year ago. Today, fewer machine guns jam, and cartridges seldom if ever misfire. All this means that the weapons our fighting men are being provided with are more efficient and effective.

Conserving RUBBER by developing Substitutes

The Rubber situation presents a serious problem to many manufacturers — and to us at STOKES it is a challenge. Rubber must be conserved.

In the spirit of co-operation our Technical Department, having as its objective the conservation of Crude Rubber and Reclaimed Rubber, set itself the task of perfecting practical substitutes. The results are highly satisfactory.

Another war service being rendered by our Technical Department is in developing Plastic parts as substitutes for strategic metals of which there is extreme shortage.

Our engineers have co-operated with manufacturers of products of all kinds and because of our extensive facilities, long experience in rubber and plastics and the scientific and technical ability of our organization, we have been able to help customers utilize available materials to their best advantage.

May we advise you about materials you need?

JOSEPH STOKES RUBBER COMPANY LTD 19 S 20
WELLAND, ONT. CANADA
Custom Molders
ALL FORMS OF HARD AND SOFT RUBBER AND PLASTICS

HUNTER BOATS
Builders of High-Grade
"AQUA-LITY" CRAFT
CRUISERS and RUNABOUTS
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Complete facilities for building wooden commercial ships of all types up to 117'.
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DRYDOCKING
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Address all inquiries to:
HUNTER BOATS
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KAEBELITE
TRADE-MARK
DIAMOND TOOLS
for the MOST EXACTING PRECISION WORK

for EVERY INDUSTRIAL PURPOSE and ALL MAKES of GRINDERS
Write for Information
MADE IN CANADA SINCE 1938
CANADIAN KOEBEL DIAMOND TOOLS LTD.
WINDSOR ONTARIO
Halifax · Montreal · Toronto · Winnipeg · Calgary · Vancouver

The Human Side of Science

Continuous development on the technical side through scientific research has provided this girl with the last word in efficient equipment for the public's telephone use.

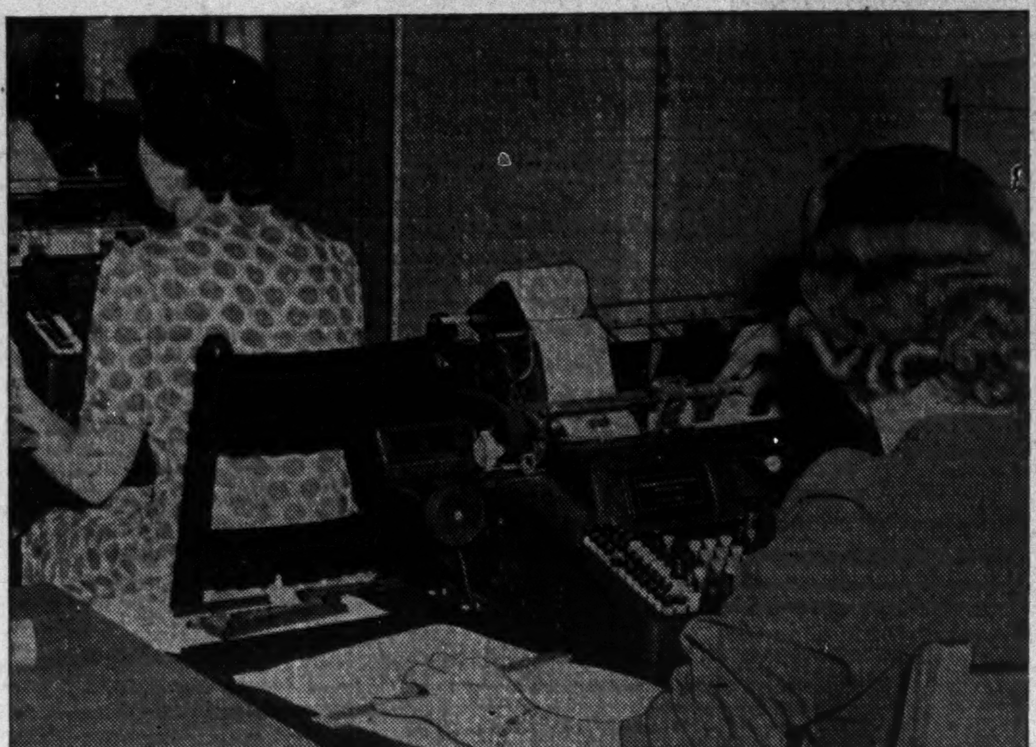
She is the symbol in the public mind of telephone service. And she is the symbol of all those quietly effective, loyal and enthusiastic employees — the human side of telephone efficiency — who are meeting today's heavy overload of calls.

Neither she nor they wear a uniform — but all are in the thick of Canada's war activity, completing the calls that speed the nation's military and industrial drive for VICTORY.

HELP HER TO HELP CANADA'S WAR EFFORT
by
Avoiding unnecessary telephoning both local and Long Distance.
Using Long Distance in off-peak hours — before 9.30 a.m.; 1-2 p.m.; 5-7 p.m.; after 9 p.m.
Conserving telephone time — making calls brief.
It all adds up on over 6,500,000 daily telephone calls.

THE BELL TELEPHONE COMPANY OF CANADA

Business Machines Speed War Output



Keeping tax payments straight these days is a man-sized job that is handled by women operators plus efficient, modern accounting machines. Each taxpayer, whether corporate or individual, has an individual ledger card. Shown is part of the battery of accounting machines in the income tax division of the Dominion's offices posting debits and credits of tax receipts to ledger cards.

The tremendous drains on Canada's manpower, the vastness and complexity of the Dominion's war effort have brought new emphasis on the use of business machines. Because they save workers' time, and because they are the only agency capable of dealing with the complex statistics of a nation at war, the demand for modern machines is greater today than ever before.

Up till now, it has been fairly easy for the businessman to obtain machines to help carry on his business. But authorities believe that this situation will be changed in the near future by restricting orders regarding the manufacture and sale of office machines. While new machines are expected to be available for war plants, civilian firms are likely to be cut off, may even be asked to turn in some existing equipment.

Several simplifications have been introduced in manufacturing typewriters. Carriage widths are limited to four types now where there were six formerly. Keyboards are restricted to two types, and portables from 44 types to three or four.

To the same end sales are limited for the year beginning June 1, 1942, to 65% of the sales based on the 1941 calendar year. All new and recent model factory rebuilt machines are reserved for government use and essential or semi-essential industries. This left for sale models over ten years old, and new portable typewriters, always within the limit of production restrictions. Next step expected is limitation of used equipment sales, now enjoying a boom.

Probably the most important, certainly the most numerous, of wartime business machines is the typewriter. Although thousands of typewriters have been shifted to government offices to take care of the swelling flood of contracts and correspondence, normal business has been able to carry on, largely because the typewriter is one of the most durable of office tools.

But the tempo of war production has placed even greater drains on the supply of calculating machines, and the accounting and payroll machines that are part typewriter, part calculator. The extensive use of the payroll machine not only saves precious labor, but reduces errors to a minimum, commands the confidence of the employee.

Along with these services on the direct production front, these mechanical clerks are performing herculean tasks in tabulating, correlating and sifting the statistics on military and production fronts.

In all businesses peak production is the main objective and this cannot be obtained without intensive preparatory work. Ordinary office routine work has taken on added importance. Government office work has increased so enormously that the government is calling for equipment in ever-increasing quantities.

Businesses engaged in war work have a variety of methods for securing the greatest volume from their machines. In big volume businesses it is accomplished by centralized use of machines. For instance, all work requiring calculating machines is forwarded to a calculating department. This method means that fewer machines are required because each machine is put to full time use, whereas previously more machines were employed, but perhaps used only a few times in a day.

When an unusual volume of business is being transacted some offices have found that the double shift is practical in helping to speed up the completion of the work.

Other businesses find it feasible to schedule the time that a machine is in use in each department, and to shift the machines around according to this schedule.

All these adjustments come under office management, which one machine industry official stated "is based on logistics, i.e., the right thing at the right time."

Machine operators contribute indirectly to the war effort by making their machines last as long as possible. Special instructions are available from service and machine companies to this end. To get maximum production, machines must be properly and regularly serviced.

Business managers can reduce machine costs by eliminating unnecessary parts of office routine work. A great deal can be done by the elimination of unnecessary personnel motions, by revamping office forms and ruthlessly cutting unnecessary paper work.

Among the more modern types of machine playing a wartime role is the electromatic writing machine, much used in government offices, where a great many copies of statements, records and other documents are required. Operated by electricity, the machine is capable of a very high degree of carbon force, with only a light touch required to operate it. It has greater speed than the normal typewriter but it is more specialized because of its expense. These fine machines are manufactured in the United States and are becoming increasingly difficult to get in Canada. Only a very high priority rating will obtain one.

Wartime efficiency is heightened in many offices by a new executone two-way communication system, which was first used in the United States about six years ago and has recently been introduced in Canada.

The system accommodates from two to 70 stations, enabling executives to conduct two-way conversations throughout their plants. Several stations can be connected with each other, allowing communication between department heads, and each station can in turn be connected with 20 other stations in a system for round-table conference. General orders can be broadcast by this system.

More Time Saved

Another time-saving machine is the dictaphone electricord machine which can be used as a dictating machine; it can also record conferences and make a cylinder record of two-way telephone conversations.

Special government work affecting a whole nation, such as tax deductions at the source and bond purchases are facilitated tremendously by the existence of modern office machines. It is doubtful if the work could be done as easily, if done at all, without these machines.

The picture regarding the use of office machines is naturally affected by the trends in the machine industry.

Certain restrictions regarding volume of sales, manufacturing of new machines and selling prices were in force, varying according to the type of machine manufactured. Renting of machines was quite in order. But authorities believe that from now on, with restrictions becoming more severe, the supply problem will become more acute. The used market is expected to come under government control.

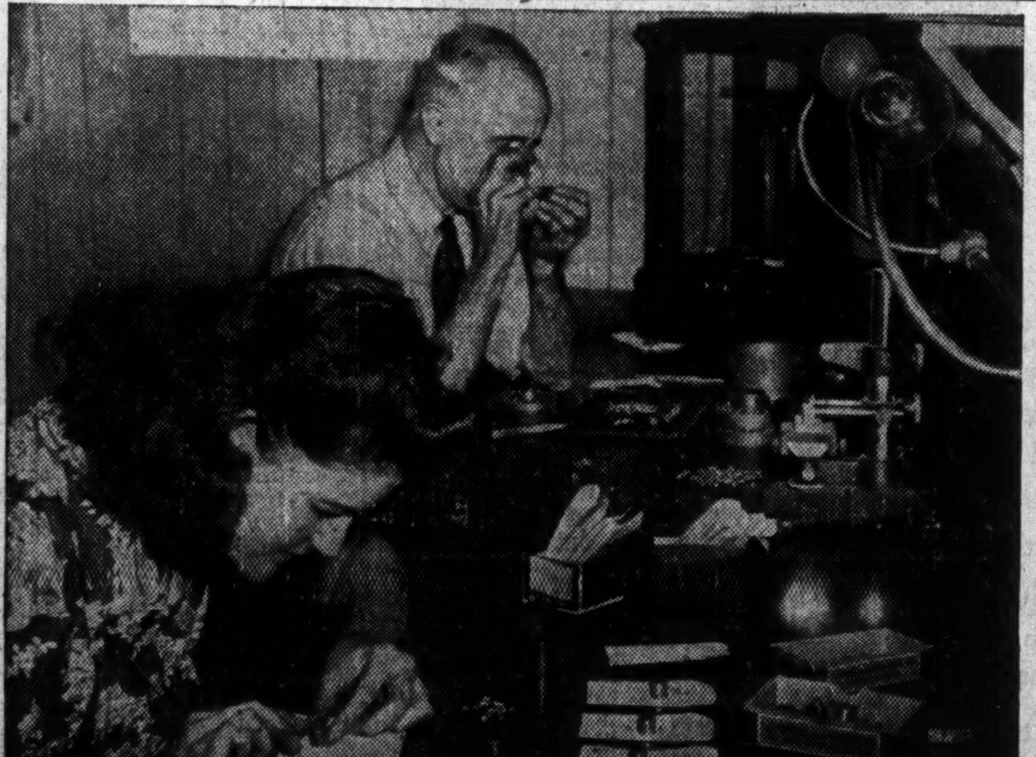
This change has come about not only because of scarcity of metals in Canada but because of Canada's dependence upon the United States for basic parts of the machines, which in many cases are only assembled in Canada. Only in particular cases can an industry requiring these parts obtain a special permit from the Canadian government which will enable them to draw from the States.

U. S. Situation

In the United States 600,000 typewriters alone are needed by the armed services, and the only way to obtain them was through a nationwide appeal. They could not depend on the manufacturers for any of these machines because, effective Oct. 31, 1942, the government has forbidden the manufacture of typewriters. So far the response to the appeal has been far from satisfactory.

The United States typewriter industry differs from Canada in one main point. Many manufacturing plants in the U. S. were originally devoted to small arms production during the last war. When the demand for small arms ceased the plants were easily converted to the manufacture of typewriters. Now one plant in the whole country is manufacturing typewriters while the remainder are doing war work. And of that one plant's production, 65% will go to the armed service.

Such is not the case in Canada. Prewar demand for typewriters was not large enough to warrant their manufacture in Canada. Consequently, since the total cost plus import duty was less than the cost of manufacturing them in Canada, the parts were imported and assembly plants built. As these plants in some cases are not adaptable to war production, one of their main current jobs is repair and conservation of Canada's vital store of equipment.



These diamonds are not being sorted for rings or tiaras, but for tools. Although few people think of the diamond as being anything more than a precious stone, 75% of them are used industrially, for dressing and truing grinding wheels, and instruments for cutting, boring and turning—often to a tolerance of less than one ten-thousandth of an inch—such non-ferrous metals as brass, bronze and aluminum.

Manager of Canadian Koebel Diamond Tools Ltd. of Windsor, Ont., is Gunnar Karlstrom, who says that the diamond tool industry has reason to be proud of its contribution to the war industry. At his plant, where this picture was taken, great care is taken to pick out the correct diamond for the job. Until comparatively recent times large diamonds were used in diamond tools. They had to be reset frequently to bring up new points. More modern practice, developed by Charles J. Koebel, put to work smaller diamonds, which are practically all point, and reduced waste to a minimum.

Diamonds are on the list of materials vital to war production.

It's Right
MASONITE

MEET A NEW SOLDIER

Serving the United Nations on a World-wide Battle Front

In army huts, administration buildings, barracks, training schools, airplane hangars, and munitions plants . . . in the varied activities of the Navy, Army and Air Force . . . in field ambulances, army trucks, tanks and radio stations . . . for a thousand other uses . . . TEN/TEST and Masonite are doing a full-time wartime job on the home front and on the fighting front.

Made in a Canadian plant by Canadian workers, these products are efficiently serving the Allied cause by releasing critical materials vitally necessary for the war effort. As replacement materials TEN/TEST and Masonite fill many uses hitherto considered impossible.

And in the home . . . and on the home front . . . these two companion products continue to efficiently serve and shelter Canadians from coast to coast.

International Fibre Board, Limited, Gatineau, Que.

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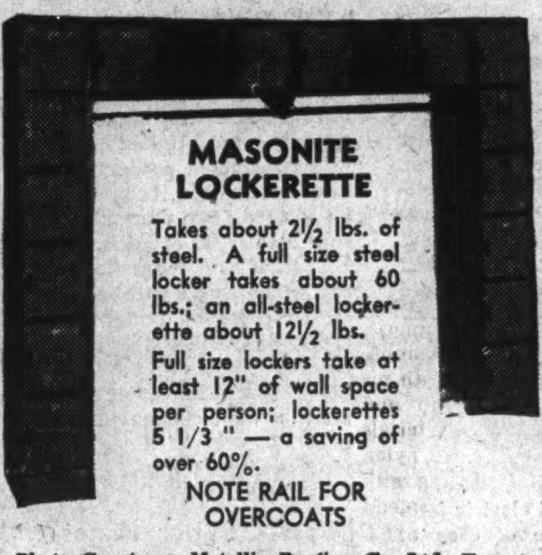

MASONITE LOCKERETTE

Takes about 2½ lbs. of steel. A full size steel locker takes about 60 lbs.; an all-steel lockerette about 12½ lbs.

Full size lockers take at least 12" of wall space per person; lockerettes 5 1/3 " — a saving of over 60%.

NOTE RAIL FOR OVERCOATS

Photo Courtesy: Metallic Roofing Co. Ltd., Toronto

Working for Victory

It's Right MASONITE

Planning for Peace

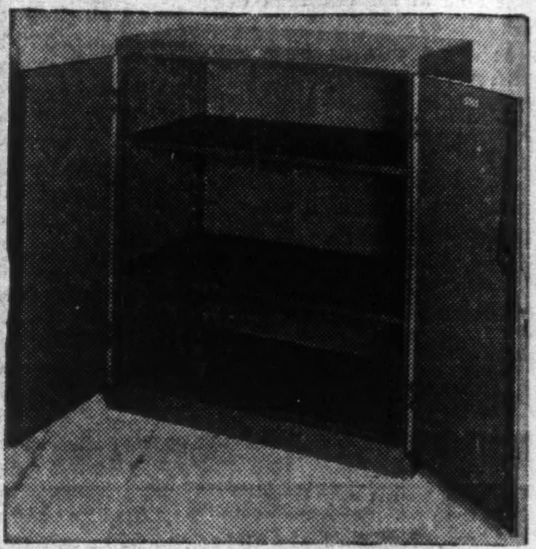

Photo Courtesy: The Steel Equipment Co. Ltd., Ottawa

NAVAL
GUN
MOUNT
ONE OF THE MANY
WAR ITEMS MADE BY
Bata
SHOE COMPANY OF
CANADA, LIMITED
BATAWA, near FRANKFORD, ONT.

War Stimulates New Industries For Peace

From Today's Shortage is Springing a New Canadian Economy

Production of these gun barrels, a new trade for Canada, involves techniques needed in the most advanced peacetime industrial operations. These new skills, plus those developed in the battle against shortages, will leave Canadian industry stronger and more diversified after the war.

Along with priorities, "shortages" is one of the most used wartime words in Canada. Shortages through loss of territory, shipping difficulties, shortages through diversion to the war effort, are now familiar explanations of a changed Canadian pattern of life. To try and meet that wide range of shortages Canadian ingenuity has developed new processes and whole new industries. These will carry over into the days of peace; we will never return to some prewar materials we used to take for granted.

Most felt shortage of all is rubber. Working in close cooperation with the United States, Canada is developing a brand-new synthetic rubber industry. The Crown-owned Polymer Corp. is spending $40 millions for a plant that will eventually produce 40,000 tons of rubber annually. Production next year is expected to reach 14,000 tons, with manufacturing scheduled to start in the latter half of 1943.

Rubber From Grain

Original idea was to produce all of Canada's synthetic rubber from a refinery gas base. The plan now calls for production of something better than 6,000 tons annually from alcohol derived from Canadian grain.

There are those who claim now that we are on the road to big synthetic rubber production, we will not return to the natural product. Time and post-war conditions will prove that theory. At any rate, this is an important wartime industry that promises to assume a noteworthy place in the post-war rubber industry.

Another synthetic cousin to natural rubber is neoprene, produced by cracking turpentine and crossing it with chlorine. Outwardly, neoprene is very similar to rubber but it is more resistant to oil-softening, sun-cracking and heat-failure. Commercial processes for raw rubber and neoprene are practically identical.

In the Toronto plant of Gutta Percha & Rubber Co. the compounding of rubber and neoprene prior to shaping and vulcanizing starts with a mixing operation between cooled steel rollers, running at different speeds. The friction reduces the raw material to a soft condition, in which state the additional agents can be added and incorporated by a kneading process.

Neoprene is the trade name used by Canadian Industries Ltd. This company stresses that articles of C.I.L. Neoprene are offered because the rubber manufacturer is thus enabled to broaden the usefulness of his range of products. Neoprene is an adjunct to, not a competitor of rubber.

To dress-conscious Canadian women, clothing articles of nylon are the last word. Just now they are virtually unobtainable due to diversion of nylon yarn to war purposes but the virtual certainty exists that this is a new industry that has come to stay in an important way. This product can be put to a wide variety of uses and already enjoys a considerable measure of consumer acceptance.

Manufacture of nylon yarn in Canada from flake polymer imported from the United States is now a fact at a C.I.L. plant at Kingston, Ont., production having recently started.

Nylon is made from phenol (carbolic acid) which comes from soft coal, and ammonia which is made by combining hydrogen from water with nitrogen from air. Cheap and plentiful as these raw materials are, the manufacture of nylon involves much processing with elaborate and costly equipment. It costs more to make nylon that it does to make rayon. The present product is the result of ten years' research by Du Pont chemists in the United States. In 1938 Du Pont announced the development of a group of new synthetic superpolymers (large molecule formations) from which, among other applications, textile fibres could be spun, surpassing in strength and elasticity any previously known textile fibre, whether cotton, linen, wool, silk or rayon. This is the process that has been brought to Canada to further round out the Dominion's industrial progress.

Nylon is absolutely proof against moths and mildew. Because the fibres are tough, they resist wear by abrasion and require a harder pull to break them. Because nylon is more elastic than any other known fibre, clothing made from it yield to usual body movements while retaining a snug fit.

Textiles do not end the possibilities of nylon for this product fits into the civilian use of brush bristles, fishline leaders, stringing tennis racquets, surgeon's thread, and many other peacetime uses.

In the industrial field an important chemical is ammonium chloride, also known as sal-ammoniac. It is used in the manufacture of dry batteries, galvanizing of sheet metals, tanning, preparation of yeast, soldering fluxes and various other manufacturing operations. Supplies of this basic chemical formerly came to Canada from Europe, but the war has brought development of a new manufacturing process in which Canadian materials can be utilized. A Hamilton plant has been turning out this product since July, 1940.

Again in the chemical field is another example of the trend toward self-sufficiency. Carbon bisulphide was formerly imported from the United States but is now manufactured at a new plant of Cornwall Chemicals Ltd. Carbon bisulphide is used mainly in the processing of rayon although it has much wider industrial applications.

Fine Glass

Before the war most of Canada's fine optical glass came from England and Germany. With those sources cut off the industry here had to start from scratch. In the Ontario plant of Research Enterprises Ltd. some 4,000 workers are now busy turning out around 14,000 pounds a month of glass as good as any that ever came out of Germany. This development, forced by the needs of war, will leave Canada with a large and efficient fine optical glass industry making it independent of outside production of this important material.

In the manufacture of paint, "drying oils" are a necessity. Supplies of China wood oil or tung oil have been disrupted by the Japanese war; perilla oil from Japan is entirely out while supply of oiticica oil from Brazil has been seriously hampered by a crop failure there.

Increased use of linseed oil is the answer to that problem. In Canada and the U.S., government officials are heartily encouraging farmers to switch cultivated acres to growing flaxseed for this purpose. For some farmers this has meant an important diversification of their crops.

Food Changes Many

On the food front, the changes have been many and noteworthy. Those who liked a pinch of paprika with their favorite dish may now get that spice from British Columbia instead of Hungary. Tasty maraschino cherries that used to come from Italy are now produced in Vancouver.

Adding zest to wartime meals is a chronic housewife's problem, made no easier by scarcities of various lines. That problem has at least been partially solved by development of the frozen foods industry. Quick freezing of various seasonal foods allows them to be kept indefinitely — strawberries taste extra good in January. The frozen food industry in Canada has so far been largely under the wing of Canada Packers, which markets the "York" brand, and Hudson's Bay Co., which handles the "Birdseye" brand. Retailers are outfitted with special refrigerated cabinets by these firms and, from these, sell their frozen products.

Dehydration Important

One of the most dramatic wartime developments in the food field is dehydrated foods.

Dehydration is playing a first-rank role in helping to feed Britain, Russia and China. Milk, eggs, vegetables, soups, fruit juices, meats are being sent in dehydrated form; a vast saving in shipping space being possible through the removal of the bulky water content from these foods.

To get Canada into this important new development Ottawa has put up something like $400,000 and we now have five dehydration plants — two in Nova Scotia, two in Ontario, and one in British Columbia. These plants can handle about 30 tons of raw vegetables a day.

Example of the present value of dehydration is that a ton of fresh potatoes should produce for table use about 1,500 lb. after storage, peeling loss, etc. The same ton of potatoes when dehydrated will reduce to 300 lb., and after water is added back, will produce an equal or greater quantity of edible product — between 1,500 and 1,800 lb. of potato for table use.

While dehydrated foods are now largely serving on the fighting fronts and with the armed forces, they have possibilities for post-war development in the civilian field. Wide scale dehydration of foods would mean an immense saving in storage space and transportation costs—would open up a vast new industrial development. Here again, Canada is ready to take its place.

Glass Cloth

Something else that the housewife can look forward to is cloth made of glass. At its Oshawa, Ont., plant, Fiberglas Canada Ltd. is producing a glass fabric suitable for tablecloths, bridge table covers, neckties, a score of other amazing uses. This is another addition to a sparkling list of Canadian wartime industrial achievements.

The field for new developments to meet war created needs is as broad as the whole Dominion. This exercise in ingenuity is a happy augury for a better way of life when peace returns.

Serving Canada since before Confederation

1866 1942

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BANK NOTE COMPANY
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The Old Canadian Company

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Sec. Treas.

Buy War Savings Certificates and War Savings Stamps

A New Post-war Plan By a Pre-war President

"Even with victory, after the dreadful degenerations of these thirty years of war, revolution and disorder, if Western civilization is to be saved from another relapse into the Dark Ages, it must be saved at the peace table. **Never will humanity need more objectivity, more tolerance and more vision, more open, and more prayerful minds."**

That is the view of Ex-President of the United States Herbert Hoover and his sometime diplomatic representative Hugh Gibson, two men who have been in the thick of internationally important affairs since the last war. Principles deduced from their wide experience with the problems and peoples of many countries are set forth in their jointly written book "The Problems of Lasting Peace." It is published by Doubleday, Doran & Co. $2.50.

Hoover and his co-author believe—

—Complete military defeat of Germany, Italy, and Japan, is imperative.

—Imperative, too—and no less so—is planning now for the peace to follow.

—This war was largely the result of an unsatisfactory peace.

—The most difficult problem at the last peace table was that no statesman "could be sure of remaining in office if he showed any sign of moderation." Too many people had suffered too bitterly: they demanded revenge.

—In this, the second total war, suffering will have been worse.

—Americans, now as in 1918, are crusading for permanent peace, not merely suspension of hostilities. But unless the peace is planned for and peace-table procedure agreed on by the United Nations before the war ends, statesmen will find it even more difficult to be moderate.

And, say Hoover and Gibson:

"We can have peace or we can have revenge, but we cannot have both."

Build and Guard

Any structure of lasting peace, they believe, must include a foundation of political, territorial, military, economic, and ideological settlements which would restore order and recovery in the world, and then the erection thereon of some instrumentality to preserve peace, perhaps the League of Nations.

Now is the time to prepare for peace, they say.

"We went to the peace conference in 1919 animated by the loftiest and most disinterested ideals, but we were totally unprepared for the specific problems that had to be met at the peace table. We secured neither peace, freedom, nor prosperity."

"After this war, when the day of the armistice or any other end to military action comes, nations will be exhausted and many of them starving. The demobilization of armies, navies, and the workers in war industries will bring great economic and governmental problems to the victors as well as to the vanquished. Political stability cannot be founded, boundaries settled, armies demobilized, peaceful production started, hunger ended, reconstruction begun, until peace is proclaimed. The whole world will be crying for haste. There will be little time to think out the forces of lasting peace. That must begin now."

Seven Forces Abroad

Recognition of seven dynamic forces—ideologies, economic pressure, nationalism, imperialism, militarism, fear-hate-revenge complexes, and the will to peace—is, the authors believe, fundamental in an approach to the problems of peace. They assert that the history of war and peace is largely a history of man's failure to comprehend and control these dynamic factors.

Among subjects which they believe should be widely discussed as a preliminary to United Nations' agreement on peace table procedure, are the following:

ELASTICITY OF TREATY.—Provision should be made for subsequent changes to meet new conditions.

INTER-GOVERNMENTAL DEBT.—They believe it to be a fact that there cannot be any continuing debt of any consequence in either reparations or loans.

MONETARY STABILITY—"We should begin again the work of the economic conference instituted by Mr. Hoover in 1933, where the combined resources and co-operative policies of all nations were to be brought to bear. It must be solved by calling upon the resources of all nations, not of America alone."

Here is their post-war pattern:

GOVERNMENT TRADING in commodities, credit, and shipping.—They believe this to be alive with international friction and threats to peace; that from the standpoint of lasting peace, the long view should be to restore international trade to free-enterprise—"If there is to be a restoration of a real volume of international trade, there must be assurance of ultimate removal of all government buying and selling in foreign markets except for possible storage of raw materials for international stabilization."

TARIFFS. — These, they believe, require two restraints: first, that they be equal to all nations; second, that they be no higher than will preserve fair competition of imports with domestic production.

TRADE BARRIERS.—Whether these be government buying and selling, unstable currencies, reciprocal agreements, preferences, quotas, monopolies, cartels or excessive tariffs, they must have vigorous overhauling: "There must be equal rights and no discrimination between nations and no agreements should be permitted that are not open equally to all nations."

RAW MATERIALS. — The whole experience of the past hundred years shows that the assurance of supplies of raw materials requires only a dissolution of monopoly controls, an assurance of equal prices, open markets and peace.

REPRESENTATIVE GOVERNMENT.—They believe at least the principle of representative government must be accepted by the enemy states if there is to be lasting peace; that there can be no lasting peace without it. But—"If we want the principle of representative government to prevail, we must make up our minds now to make such a peace as will not only initiate it but nurture it in the enemy states for long years to come." Efforts made after the last war to preserve representative government were half-hearted, they say.

FOOD BLOCKADE—Unless instantly removed when the enemy surrenders his military strength, and unless extensive and instant relief is undertaken to enemy and friend alike, Hoover and Gibson see no hope of stability in governments upon which peace can be built, and no allaying of war hates.

In relief work immediately after the war, they believe governments of the world must bear the burdens of shipping, credit, and distribution of supplies—for the enemy as well as for liberated countries.

DISARMAMENT.—Victory will offer an unparalleled opportunity to disarm and thereby reduce the cost and dangers of arms to the world to the lowest ebb for a whole century—and that would contribute much to quick recovery and lasting peace. "But if it is to be done," they say, "it must be done at once and at the peace table, not postponed. . . .

"The complete idealistic view would perhaps be the total dissolution of the military establishments of all enemy nations and the substitution for purposes of a civic order, of a constabulary of the police type, excluding the whole officer and military caste from such organization and thus assuring their disappearance from the world."

SELF-DETERMINATION. — All these nations and peoples of Europe and Asia will insist upon their independence and their own cultures. To deny them will bring no lasting peace. But there must be better organization of them if they are to keep the peace.

SMALL COUNTRIES. — "Certainly, the experience of history, and notably of the last peace, would seem to show at least the desirability of making the independence of small countries conditional upon their accepting certain definite undertakings to refrain from building up the sort of economic barriers and military action which contributed so powerfully to their own collapse and the collapse in Europe after the last war."

IRREDENTAS.—Bitter experience for a hundred years shows that these European irredentas are a constant source of war. Consideration should be given even to the heroic remedy of a transfer of populations.

ABOLITION OF BLOCKADE.—Blockades stalemate each other, the authors assert, harming chiefly women and children.

IMMIGRATION. — Requires, they believe, a definite plan of preparation. It is, they say, worth considering whether some of undeveloped areas in Polynesia and in sections of Africa should not be put under international government with equal access to all nations for immigration, trade, and development of natural resources. "Particularly could their open spaces, with proper organization, be made a refugee settlement for the oppressed of every kind and as an outlet for immigration from overpopulated nations."

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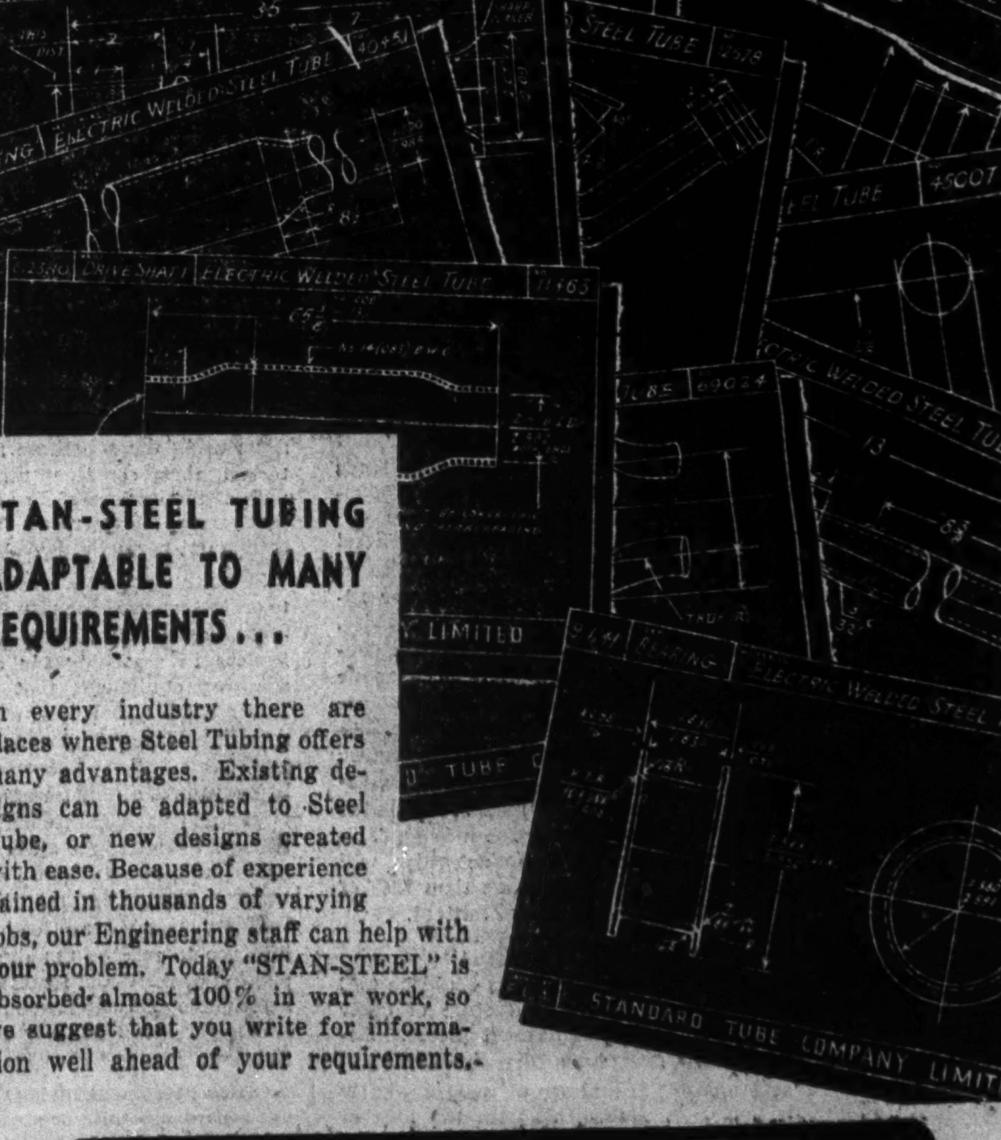
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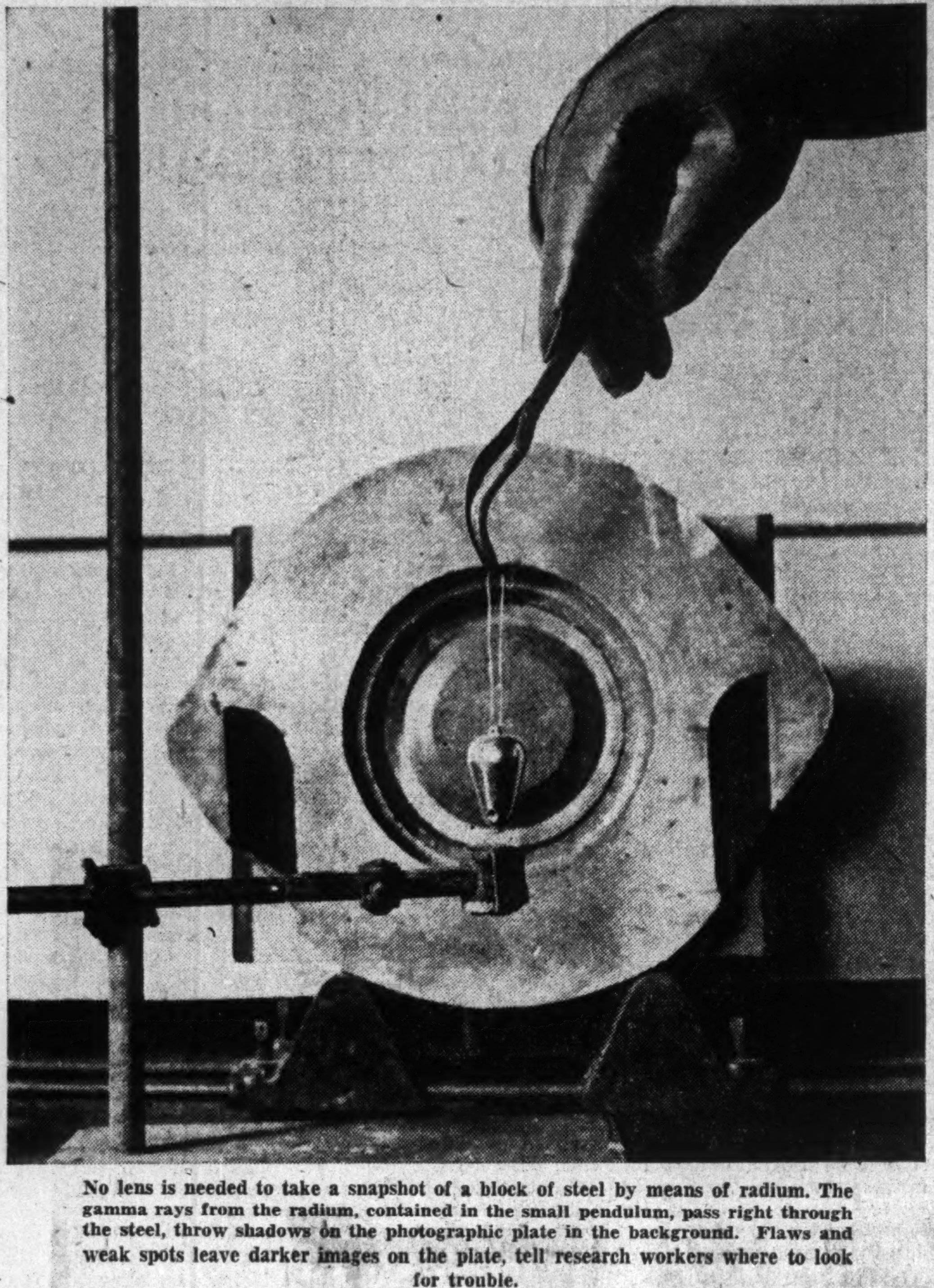
Radium Stops Accidents in Time

Gamma Rays Detect Material Flaws, Prevent Them From Entering Finished Weapons



No lens is needed to take a snapshot of a block of steel by means of radium. The gamma rays from the radium, contained in the small pendulum, pass right through the steel, throw shadows on the photographic plate in the background. Flaws and weak spots leave darker images on the plate, tell research workers where to look for trouble.

Before the war, radium and its cousin uranium were considered primarily metals of the arts of peace—radium a leading "raw material" for treatment of cancer, uranium a valuable coloring material for the pottery trade.

But today, approximately 90% of the world's radium production—all "made in Canada"—is being devoted to war uses. What uranium is being used for is a war secret.

For many years, it has been known that radium possesses many unique qualities but industrial uses had not been explored to any large degree. A certain amount of radium was used for its luminous qualities but that was about all.

Today radium is finding a growing list of uses. A tremendous amount is being used in turning out luminous dials for 'planes. While somewhat more expensive than an alternative illuminating medium, radium dials are not dependent on electricity generated by the engine for their illumination. In relation to the cost of the modern plane the extra cost of radium is not important.

But important as the airplane dial use of radium is, it is believed the relatively new use of "industrial radiography"—radium X-ray—is still more important. Through detection of flaws in iron and steel equipment, radiography is expected to save thousands of lives.

Bureaus in the United States Navy are reported to have obtained enormous benefits from the results of radiography. They are now specifying radiographic inspection for all highly stressed structural parts of ships, castings, weldings, valve fittings, high pressure steam and feed lines.

The United States Navy has over 30 capsules of radium, worth more than $150,000 at current prices, distributed at construction and inspection centres. The Navy has 25 or more X-ray installations. The U. S. Army began making welded gun carriages based on radiographic control inspection as far back as 1928 and has been one of the leaders in educating the welding industry to the value of radiography.

Radiography exists only because of the gamma-rays given off by the radon gas from radium. Due to their short wave lengths, gamma-rays are able to penetrate material opaque to visible light. They have much greater penetrating power than ordinary X-rays.

A metal object containing internal cracks, gas cavities or bits of sand or slag is inspected by having the gamma-rays pass through it to form a radiograph (actually a shadow picture) on a photographic film placed behind the object. The film is wrapped or placed in what is known as an exposure holder to exclude light during the exposure to the rays. The medical and dental professions use a similar technique in X-rays.

Like Photography

Radiography resembles ordinary photography. The exposure time required for any given "set-up" depends on the amount of radium used, radium-to-film distance, the wall thickness radiographed, the density of the material and the speed of film material used.

Exposure charts, graphs and slide rules have been devised from which correct exposures can be calculated, based on the above data. The United States Naval Research Laboratory has designed a special circular slide rule that is convenient for computing exposure times.

Radium for industrial work is now becoming quite common and can be purchased from stock at radium supply houses, prepared and mounted in aluminum type radium capsules. It is also available on rental by the day, month or year, and is rented by those who may want it only for some specific problem or where the radium would only be used occasionally.

Radium gradually decreases in intensity. Nothing can be done about this, but it is not something for most owners to worry about. It requires 1,690 years for the intensity of radium to drop to half the original value.

Without the disintegration of radium, however, part of its value would be lost. It is the radon given off by the radium through disintegration that gives the gamma-rays.

Use Vacuum Pumps

By means of complex vacuum pumps, the radon can be pumped from the radium each day or so and sealed into glass capsules. These capsules then become the source of gamma-rays which can be used, for radiography. Alternatively, the radium with its radon emanation in close association, can be used directly to carry on the radiography.

The most common film in general use for gamma-ray work is the standard screen type X-ray film.

Gamma-Rays

Gamma-rays possess an advantage over X-rays not only in their greater penetrating power, but also in testing irregular sections, it is claimed.

Radiography saves money in more ways than one. Before a casting is machined, it can be determined if some flaw in the metal may be encountered in machining which would make the machining useless.

Great advantage of radium is its portability. The equipment for gamma-ray photography can be carried any place. It fits into a couple of boxes no longer than suit cases, one containing the radium and the other carrying films and film-holders.

Radium has to be handled with great care to assure safety of the radiographer and those about him. Radium is continually active; it is impossible to stop its activity. The chief objective in keeping people safe is to reduce the amount of radiations. Distance and time are the important factors.

A carefully worked out routine removes the danger from the use of radium. In order to reduce time of exposure to radium to a minimum, the operators should make all preparations for an exposure before removal of the radium from the lead-lined storage safe. Similarly, the radium should be returned to the safe before a "set-up" is dismantled.

Shielding Helps

The effective distance from radium can be increased by the interposition of absorbing or shielding materials, such as lead, steel, other metals and concrete. The extent to which these various materials effectively increase the distance depends directly on their respective densities.

The only radium refinery in the world, that of Eldorado Gold Mines Ltd., is on a 24-hour basis, three shifts of eight hours each, in order to meet military requirements.

About 90% of the work being done by this plant is for various branches of the military forces of the British Empire and the United States.

A great deal of research has been done by Eldorado's physicists and by staffs of large metallurgical organizations in the United States, Canada and Great Britain, not only on radium but on subsidiary minerals in the Great Bear Lake area. There has been important work on uranium. Among other things, special lead is being produced for use in war plants.

CONSERVE GASOLINE

Driving at 70 miles an hour a motorist not only risks his life but uses twice as much gasoline as he would at a moderate speed.

PREVENTS TIRE THEFTS

To assist police in preventing tire thefts, it has been made an offense to sell or purchase any tire from which the serial number has been obliterated.

Science and Your Filing Job

Filing Cabinet Makers Switch From Steel

Although steel is no longer available for use in making office equipment, office managers and executives will still be able to keep their records straight.

Makers of office equipment—particularly filing equipment, lockers, baskets, toilet partitions—have found and placed in production acceptable substitutes which contain only the minimum of steel needed for joining materials.

The search for substitutes for the everyday steel office equipment uncovered several possibilities such as wood, plywood and masonite. But plywood has been placed under just as strict priority as has steel, leaving only masonite. Wood is also used, but ordinarily in somewhat different types of equipment.

Masonite for Steel

Advantages discovered for masonite include the ease with which it can be formed and worked, its strength, resistance to heat and moisture and the fact that it readily takes a finish closely resembling the steel equipment which it replaces.

An example of the importance of proper filing equipment can be found in the multitude of government documents now being assembled. Relatively few of these will ever be voluntarily destroyed at least if the experience of the last war can be taken as a guide. One maker of office equipment tells The Financial Post that following the last war it shipped hundreds of steel files overseas where they were filled with the records of Canada's war built up overseas. These records were then shipped back to Canada and are today serving a useful purpose.

Some time ago it became evident to makers of office equipment that steel would be hard to obtain and that they had better find some substitute. The search ended when masonite was adopted but the problems of using this new material with its varying physical characteristics still had to be solved. Methods have been developed of fastening masonite to the steel joining members which are required to give strength to the filing cabinet or other equipment. This can be done by a process of welding masonite to a steel frame, making a joint that is neat, strong and lends itself to assembly line production methods, a process developed and patented by Steel Equipment Co. Ottawa.

A standard four-drawer filing cabinet in the foolscap size, the size demanded for all government records, when made with the new substitute materials now uses less than 25% of the steel it used to require and substantial further reductions will be made. Within the near future such a filing cabinet will be made which will not contain more than 12% of its former steel content.

Fewer Models

Similar stories could be told for the manufacture of other office equipment pieces. Designs have been simplified and the number of models greatly reduced, all with the idea of making most effective use of the materials available. A full size steel locker, for example, used to take about 60 lb. of steel and an all-steel lockerette about 12½ lb. of steel. Now equipment makers are offering a masonite lockerette which only requires about 2½ lb. of steel, all of this for the joining members. Toilet partitions used invariably to be made of steel but this metal is banned from such uses today. A masonite partition is now available which gives a saving of 70% in steel and does the job well.

Durability First

In all of this work, makers of office equipment have remembered that records are permanent; that they require protection and proper filing to assure long life. They have also remembered that appearance counts and have developed designs using the substitute materials that combine utility with attractive appearance and that match former all-steel equipment perfectly.

Substitution is not confined to ordinary peacetime uses. Defense departments have been leaders in searching for and adopting equipment that releases vital metals for other uses. Experiments on tool boxes and ammunition boxes are being pushed. Lining for ambulances and various mechanical transport vehicles are all being made using substitute materials, frequently masonite. Delivery wagons are coming into use to replace the disappearing or restricted truck and automobile and using such materials for much of their construction.

Office equipment makers do not regard masonite or similar substitute materials as likely to replace metals permanently. Masonite for office files is thought to be strictly an emergency substitute. It lacks some of the strength and fireproof qualities of steel and is more costly to make. A few of these new uses may prove permanent but not too much is expected in this way.

SCRAP BRIDGES THE GAP

To bridge the gap in an attack the army needs pontoon bridges. One such bridge, which weighs 10 tons, requires enough rubber for 260 ordinary automobile tires. To bridge the gap between the present rubber shortage and the day when synthetic production will help to supply the needs of the armed forces, scrap rubber is needed. Get in the scrap!

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Workers' Efficiency Drops if Work Week Too Long

Studies in Britain and U. S. Show Production Decreases if Hours are Excessive

How many hours a man—or oman—can work and still re- ain maximum efficiency is a ubject engaging the interest f industrial leaders and labor fficials in Canada.

Although no specific study has been made here, Canada is likely to make use of surveys taken in Great Britain and the United States.

Conditions in both these ountries, particularly the U.S., losely parallel those in Can- da. We have the problem of hortage of workers and a desperate need for war materials. We also realize now—as few id prior to Britain's experi- nces following Dunkirk—how mportant it is that optimum work hours be adopted.

It thus becomes vital to determine the most efficient relationship between final production and hours of work.

The Industrial Relations Section of Princeton University has made an important contribution through a survey covering 140 companies, in various industries, employing two million men and women throughout the United States.

Findings of Survey

This survey found that an verwhelming proportion of executives consider an eight-hour day and a 48-hour week are the optimum hours per worker for maximum, sustained production in war industry. More than five times as many favor the 48-hour week over any other particular work week.

Variation in this optimum work week within the range of from 40 hours as a minimum to 60 as a maximum depends on such factors as physical effort involved, speed and intensity of work, and physical capacity of workers.

An apparently unanimous opinion is that hours less than 40 per week do not increase individual productivity and that hours above 60 a week definitely decrease productivity and increase absences and accidents.

When men are working at light work and working conditions are good, and particularly if the man can set his own pace, it appears that the optimum hours of work for men are more likely to range above than below 48 per week.

Both opinion and experience indicate a lower optimum for women than for men. Physiological limitations and domestic arrangements make it difficult for women to work more than eight hours a day, and domestic arrangements frequently interfere with a regular six-day week.

Under favorable conditions of work, the 48-hour week is not likely to be detrimental to a woman's health, but taking into account household and family responsibilities, the 40-hour week is more nearly the optimum for women industrial workers.

Opinion is strongly against the seven-day work week. Companies which have employed workers on a seven-day week, even for a short time, have observed a decrease in productivity, an increase in accidents, and a sharp increase in absenteeism.

So invariably is it true that the seven-day week results in ill-effects on both productivity and employee health, that many firms question the advisability of seven-day operation of a plant, even if only until enough workers can be recruited and trained to make up an extra shift. Others feel the best use of manpower is in three shifts of 48 hours each and that Sunday should be used regularly for maintenance work and to relieve "bottlenecks" in production.

Experience in the United States indicates an invariable increase in absenteeism when hours go over 48 and a probable increase in accident frequency. Where other factors affecting this increase in hours work can be controlled, absences and accidents may be kept within reasonable bounds with longer hours. Attention to the health of the workers, more adequate housing, assistance in caring for the children of working mothers are all matters which may reduce absenteeism and turnover.

If it becomes necessary to work longer hours, the need should be made absolutely clear to employees, and results in terms of productivity given to them regularly. Wherever the management provides employees with bulletins or cards showing their production in relation to quotas, it has been found to help keep employees reminded of the importance of their own work in the total defense effort, and to encourage sustained individual productivity.

In determining optimum hours for maximum productivity the length of time during which the emergency period is likely to extend has to be considered. Industry in the United States has found that hours over 60 per week do not result in proportionately increased production except for very short periods of time.

British Experience

After Dunkirk, British experience proved this even more conclusively. Results of excessive overtime on workers' health and mental conditions show quickly in lost time and lowered efficiency.

In preparing its survey of hours of work on war production, Princeton University drew fairly heavily on British experience.

Both in Great Britain and in the United States it has been found that determination of the optimum hours of work involves consideration of relatively few factors.

The physical effort required enters into the picture. It is obvious that a man employed on unusually heavy work cannot maintain his efficiency over as long hours as a man working on a lighter job. One company finds that above 54 hours on the average job the efficiency of the male worker went off 5%, and on a heavy job, 11.5%.

Intensity of Work

Also relating to the physical effort required is the intensity of the work. Where sustained application, concentration, special skill or mental effort is involved, it is found that fatigue develops just as quickly as on much heavier work. British studies have determined that the speed of work is of utmost importance in determining the hours of maximum productivity.

Physical capacity of the workers themselves is another factor. Average physical capacity of available employees tends downward as the available supply of labor decreases.

Adequate lunch and rest periods are of great help in maintaining a high level of efficiency. British experience stressed this factor even more than has that in the United States. One example revealed an average increase in productivity of 6.2% when a rest period of from seven to 10 minutes was introduced during the morning work spell of 4½ hours. A widespread opinion is that lunch periods of less than 30 minutes are not desirable, having effect on both the productivity and the health of the worker.

Overtime Incentive

Difficulty is frequently found in placing in effect a longer work week than that to which workers have been accustomed. To make this acceptable it is necessary to bring out a full realization of the need for the all-out effort and give as much consideration as possible to employees' normal living habits. The financial incentive for overtime is invariably mentioned.

The worker's interest in his job has to be stimulated. Although studies of industrial fatigue have shown the ill-effect of boredom on productivity, little has yet been done to counteract this in most routine jobs. Comparatively few concerns have inaugurated regular rest periods for either men or women and even less has been done toward a regular rotation of jobs.

Night Work

When night work is necessary, it frequently results in lower efficiency and output and it is recommended that shifts be rotated in order that all workers may have a chance to build up their physical reserve when on the normal day shift. American industry has found it almost invariably necessary to give some bonus for night work.

Transportation to and from work has to be considered. British experience has shown that hours can be longer in summer than in winter because of the greater difficulties of transportation during blackouts. For both men and women, congested traffic, crowded buses and inconvenient train and bus schedules may prove serious problems which have to be considered when deciding the individual efficiency for any given work period.

Iron Ore—Stepchild of Mining

War Turns the Spotlight on Canada's 'Marginal' Iron Mines

Canada has long been known s a repository of great iron deposits. From the Belcher slands in Hudson Bay to Three ivers on the St. Lawrence, cross the north shore of Lake uperior and out to British Co- mbia, Canada has just about s extensive iron resources as ny country in the world.

But this fact has failed to re- ister when it came to turning ut iron ore from Canada in the ast. It has been assumed that he United States iron ore re- ources are richer than most of hose in Canada and that there as no point to opening up anadian deposits while the nited States could turn out ore than was needed.

The full extent of Canadian esources of the two highest rades of iron ore — hematite nd magnetite—were not ap- reciated. Even the value of lgoma Steel's output of side- ite ore for concentrating has ot been generally realized. he fact that iron mining petered out" in the twenties, ven though it had been one of ur earliest industries, was aken as meaning that iron ining just wasn't an economic usiness for Canada.

But the tremendous produc- ion effort now being put forth y the United States has hanged the entire picture now. he great rich 50% plus, hema- ite iron deposits south of the order are no longer "tremend- us." The United States is eeking iron ore—rich and oor—in unparalleled quanti- ies.

This fact has served in the hort space of two years to dis- el the idea that resources of igh grade iron ore stopped at he international boundary; hat Canada was poor when it mes to high grade iron. Here e a few of the resources hich Canada possesses in the on ore field:

(a) Deposits of siderite or wer grade iron ore which lgoma Steel Corp. has effec- ively demonstrated makes a ost acceptable product for e steel industry after sinter- g.

(b) Great tonnages of hema- te iron ore within easy reach water transportation.

(c) Resources of high grade agnetite iron ore beside our igh grade hematite.

That Canada's resources of on ore will be used more ex- nsively in the future appears efinite. Steel plants can turn ut twice as much steel when ey can get scrap instead of on ore. Failing supplies of rap, steel mills can get their eatest production by using e highest grade of iron ore ailable.

The United States has been deavoring to get hematite m Brazil. With the shipping ation in a snarl the desired ore hasn't been coming m Brazil and Canada is ng looked to for additional plies.

eep Rock Started it

Diamond drill discovery of e high grade hematite iron e deposits of Steep Rock Iron Mines below the waters of Steep Rock Lake in 1937-38 touched off the high grade iron ore hunt in Canada. Belatedly, it was recalled that the Steep Rock area represents an extension into Canada of the great Mesabi iron range of the United States.

A major programme of diamond drilling from the ice of Steep Rock Lake disclosed the main ore body to be vertical in character while samples from the drill cores showed an exceptionally high grade, hard iron ore with low values in each of the undesirable impurities.

Negotiations Progress

Officials have tenaciously worked on the problems facing Steep Rock, and from official information available it seems that many of the difficulties in the way of placing these deposits in production have been ironed out. Chief remaining problems seem to be negotiation of further finances, now reported under way, provisions for loading terminals — costing approximately $2 millions —and securing a freight rate comparable to that given the United States iron ore companies. Good progress has been made.

It is believed that general agreements have been secured on drainage and diversion of the waters of Steep Rock Lake which are necessary for open pit mining. This part of the work would cost around $6 millions, it has been reported.

Placing Steep Rock in production will require considerable time but it might be possible to take out the first iron ore within one and a half years of commencement of the programme. The trend in the United States recently has been to open up lower grade deposits as hematite resources are fully utilized. Production of hematite from Steep Rock might be arranged for a time when it is most needed. Diamond drilling has suggested that perhaps hundreds of millions of tons of iron ore are available in the Steep Rock deposits, but clearing the way for active mining has been a difficult task. The management hopes that it is on the "home stretch"

Michipicoten Next

Canada's next producer of iron ore—even before Steep Rock—will likely be Michipicoten Iron Mines which plans to turn out lump ore this fall if plans go according to schedule. Michipicoten, financed by the Ventures-sponsored Frobisher Exploration Co. and Sherritt Gordon Mines, has two deposits on the Michipicoten iron range and steps are being taken to place the higher grade Josephine deposit in production while diamond drilling is being carried on at the second deposit to determine tonnage of ore available.

A shaft is being put down to a depth of 1,000 ft. at the Josephine sector and it is from here that officials expect production by late fall. High grade lump ore for the steel industry will be turned out. A very substantial tonnage of quartz-hematite ore, averaging 40% iron, as well as a smaller tonnage of good grade hematite averaging about 55% iron, was indicated by the surface drilling. Results of test work carried out at the Sherritt Gordon laboratory indicated that a high grade hematite concentrate can be made and a pilot mill is to be erected to check the ore under commercial operating conditions.

Location of a siderite iron deposit on an adjacent Michipicoten Iron Mines property has resulted from a programme of testing other properties in the same general area. If a substantial tonnage of siderite is proven up on a number of properties, it is felt there is no reason why profitable sintering operations, similar to that at the New Helen mine of Algoma Steel Corp. cannot be developed.

New Helen Shipments

During 1941, the New Helen Mine of Algoma Steel Corp., located in the Algoma district, Michipicoten area, Ontario, shipped a total of 456,140 tons of sintered ore averaging 50.34% iron, according to data compiled by the Lake Superior Iron Ore Association of Cleveland.

The 1941 production established a new record for output and was far in advance of the company's rated capacity for turning out sinter. The siderite iron ore available has been found more readily sinterable than originally anticipated and the average iron content of the finished product has been higher. Ore reserves at the New Helen mine are immense and might be sufficient for 100 years' operation at double the existing rate of production. The deposit is undoubtedly one of the largest yet disclosed in Canada.

Labrador's Iron Assets

As a result of recent financing, extensive indicated iron deposits of Labrador Mining & Exploration Co., are expected to get their first real testing shortly. Hollinger Consolidated is the new financing interest and has now assumed control.

Work carried out in the past on the extensive concession disclosed several deposits of iron including two which appeared to be of major importance.

The deposit located at Sawyer Lake is approximately 10 miles east of the south end of Dyke Lake while the other is along a narrow ridge separating Attikamagen Lake from Petitsikaupa Lake. At the latter location, prospecting carried out in 1937 indicated an iron formation several miles long outcropping intermittently across as great a width as 4,000 ft. with an indicated thickness of 250 ft. The proportion of this which would make ore is not yet known.

Development of the iron ore resources of Labrador may eventually involve development of power as well as iron ore resources. There are great undeveloped water power resources in this area which might be utilized. It also might be found desirable to build a railroad perhaps three hundred miles long to give more adequate access to the area.

B. C. Resurveys Iron

A new survey of the iron possibilities of British Columbia was completed earlier this year for the provincial government and it was suggested that a commercial iron and steel industry might be developed.

The report had this to say:

"The Province of British Columbia contains a great many deposits of magnetite and a few of limonite and hematite, but development work has been sufficient in only a few cases to outline the ore bodies completely and make possible definite tonnage estimates. However, from the data published by Hodge, Stansfield, Brewer, Lindeman and other investigators, we may safely assume that there is an adequate supply of reasonably rich ore to support, for many years, an iron industry of the capacity herein proposed for the Department of Mines."

Existence of a number of deposits on Vancouver Island is noted. The Zeballos deposit should be productive of at least 500,000 tons of concentrates, it is stated, while the Iron Hill and Iron River deposits, also on the island, should be productive of a million tons of concentrates taken together, it was thought. Existence of deposits on Texada Island was also noted.

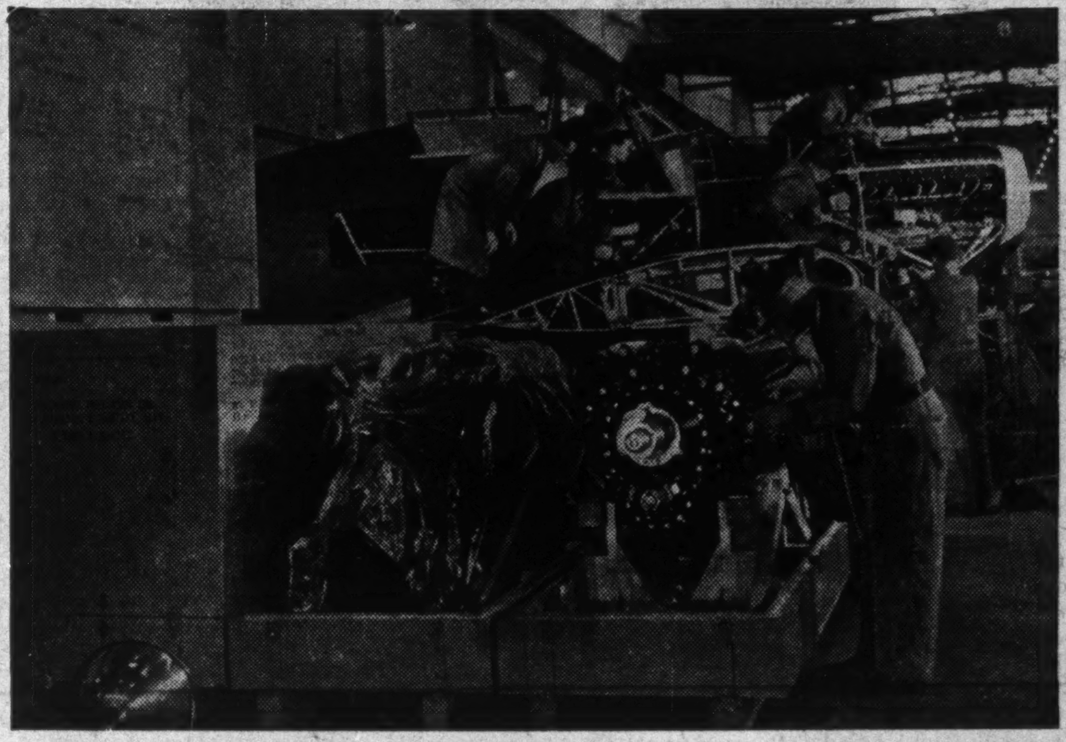
Prospecting for iron ore has become extensive in eastern Canada, and there has been a combing over of old reports.

Frobisher Exploration Co., the Ventures subsidiary, is testing the Bessemer mine at Bancroft, Ontario, and it is also drilling the Ford mine on Vancouver Island. In British Columbia Ventures is reported constructing a smelter for processing scrap and possibly primary ore may be used at a later date.

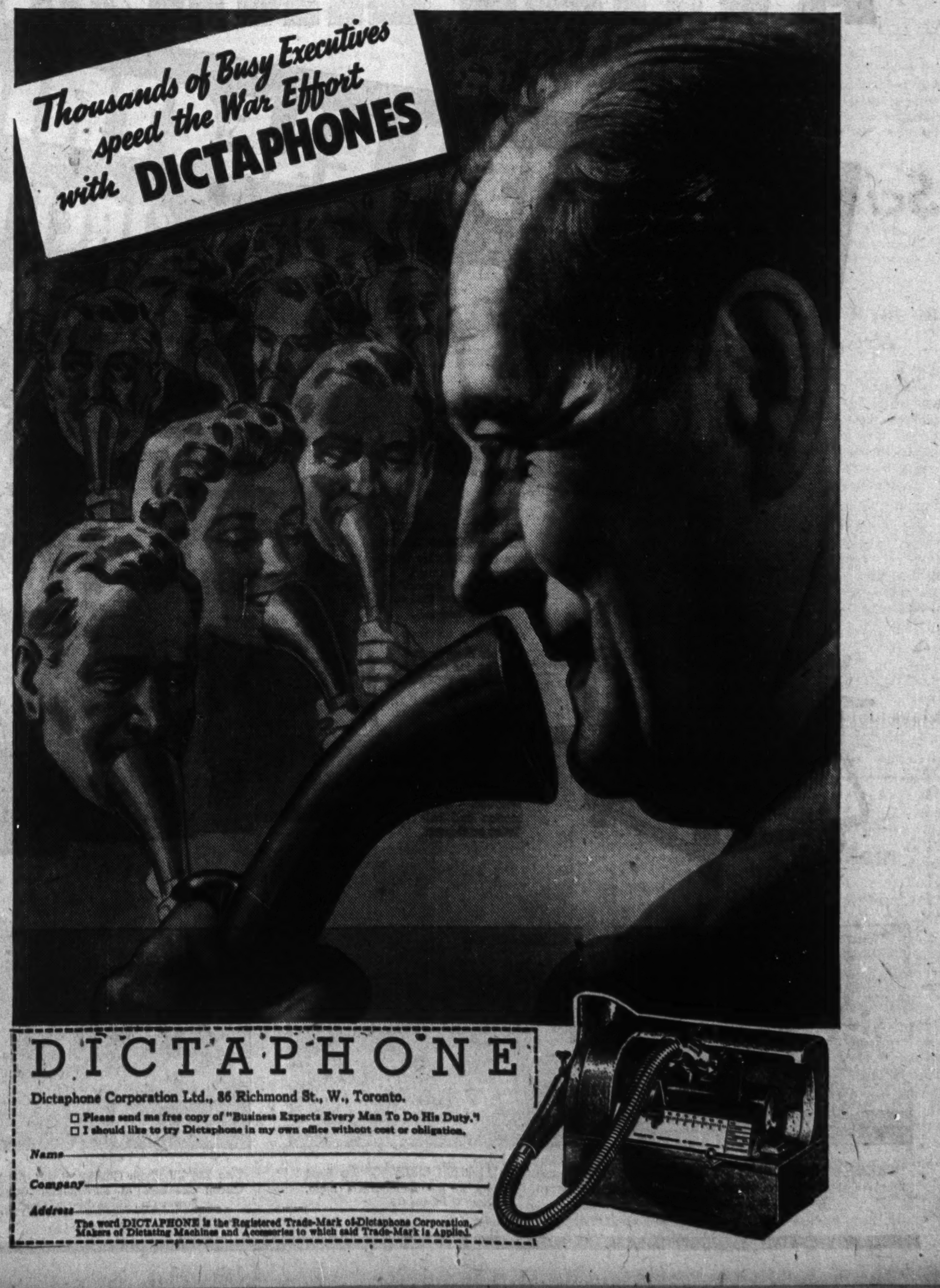
Nipissing Mines has an iron ore property in New York State that may prove a producer. Nipissing holds control of the company through a stock interest of over 50% in a company known as Croton Iron Mines.

The property is located 50 miles north of New York City and 15 miles east of the Hudson River. Considerable diamond drilling has been carried out here by one of the largest American iron mining companies in recent months. It is now estimated that there are 15 million tons of definite and probable ore with a very large amount of possible ore in addition. The property interest is held in Nipissing's books at $66,395.

How extensively Canada's iron mining industry will be developed in the next decade depends in large part on the length of the war. As the United States eats rapidly into its supplies of highest grade ore, the demand for greater Canadian production of iron will grow. If the war lasts for an extended period and steel capacity is increased further, chances are that the demand for Canadian iron will be just that much greater.



Here's an example of the way in which Britain, Canada and the United States are combining their war effort on the industrial front—a Rolls Royce Merlin engine designed in England, built by the Packard Motor Car Co. at Detroit, being put into a Hurricane fighter plane—also designed in England—which was built at Fort William by Canadian Car & Foundry Co.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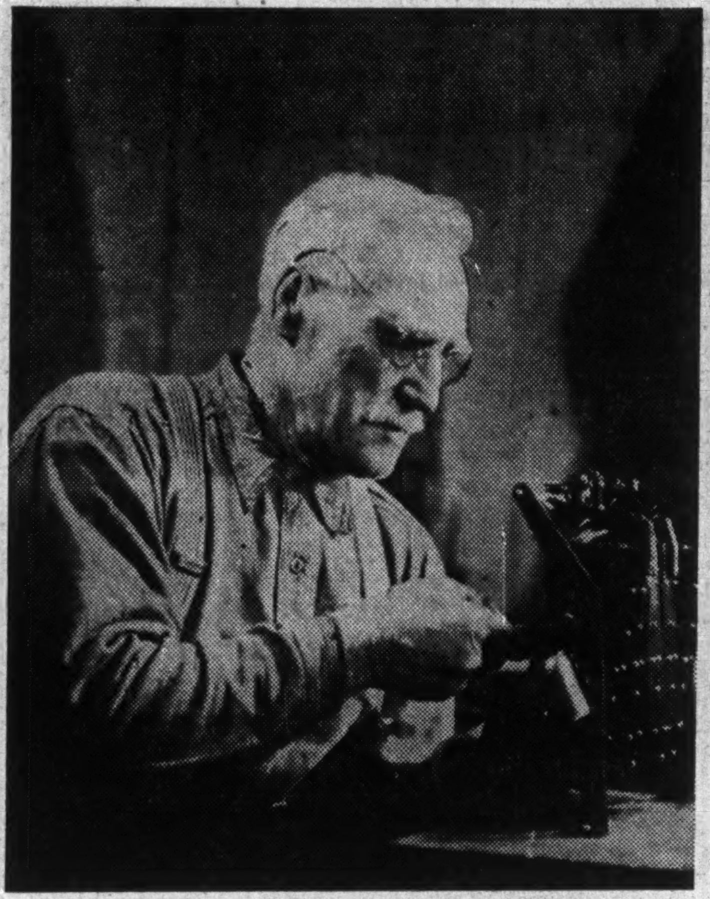
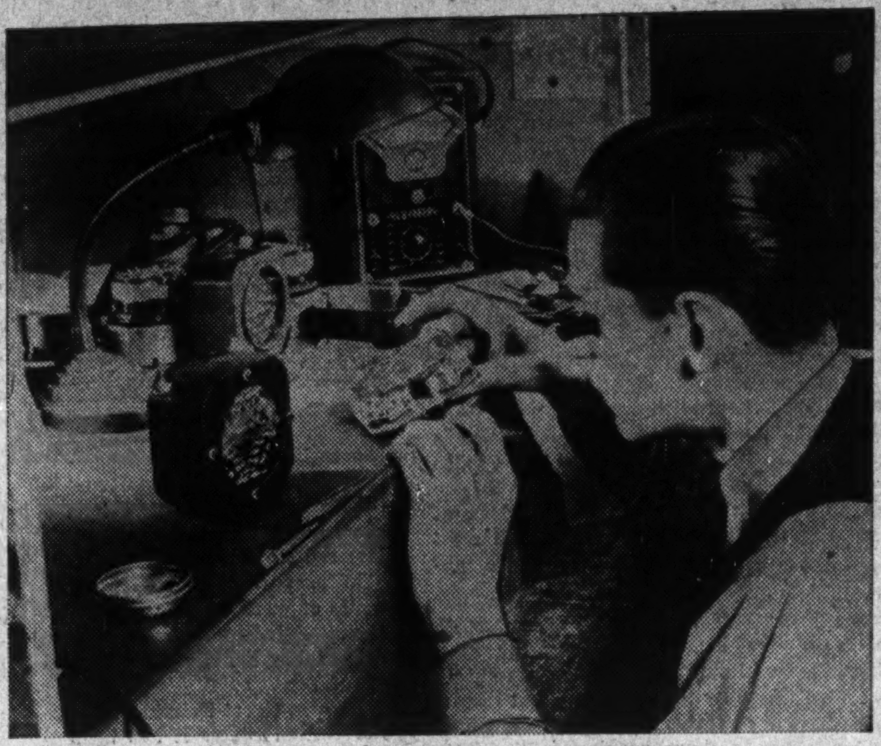
Canada Masters The Art of Aircraft Production

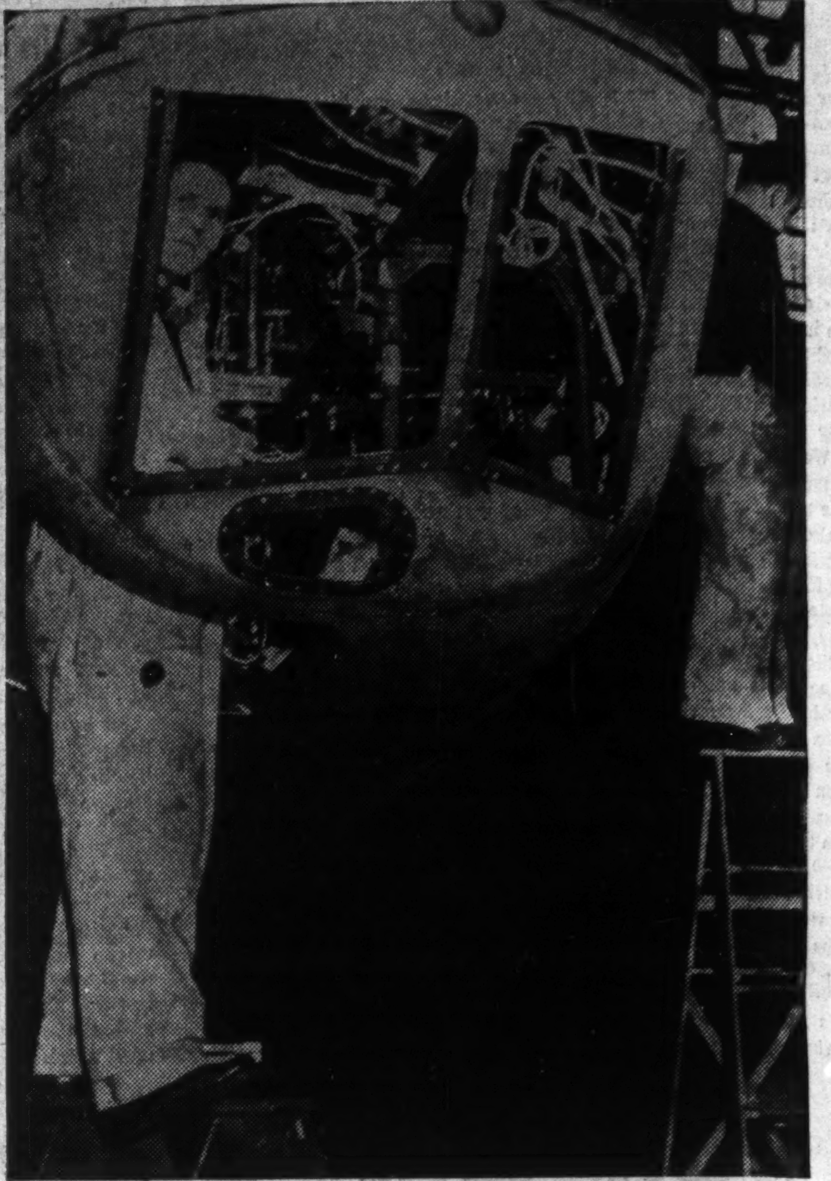
Three years ago, Canada was turning out about 40 planes a year, from an industry which is now officially stated to be turning out 400 planes a month. The types of planes, the production plants, the methods now in use can scarcely be recognized as the lineal descendants of the peacetime aircraft industry. In these photos, taken from the National Film Board's new documentary film "Keep 'Em Flying," The Financial Post shows some of the new skills that have developed as Canada took to plane building.



Precision-made bellows, here being inspected, govern the Link trainer, which simulates flying conditions on the ground.



In addition to these standard flight instruments, Canada builds new and secret navigation equipment for her planes and those of her allies.



Intensely complex are the wirings and controls installed in the nose of the Bolingbroke bomber.

Accurate to within a thousandth of an inch must be the dies used to stamp out plane propellers. The tools that shape and measure these dies must often be ten times as finely calibrated. (Left)

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CIRCUIT
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At right is a typical breaker for voltage classes of 69,000 to 230,000 volts. Detailed information and bulletins on request.

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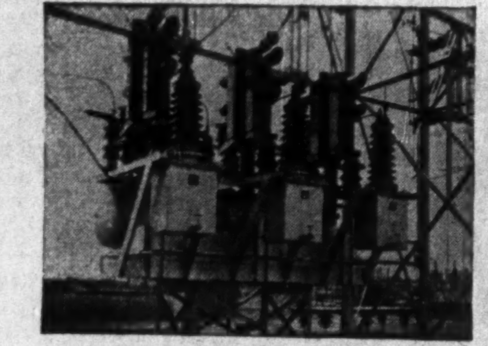
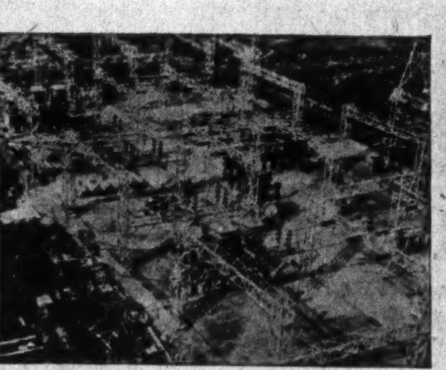
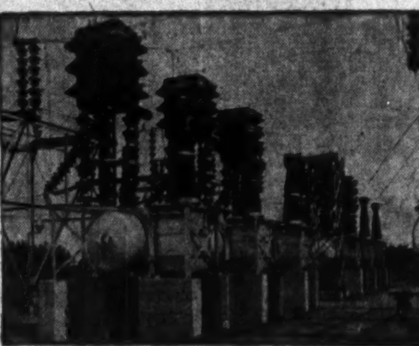


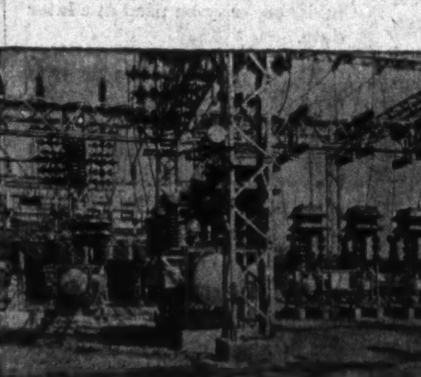
"ENGLISH ELECTRIC" 69 KV Air Blast Circuit Breakers at Shawinigan Water & Power Co., Three Rivers, Que.



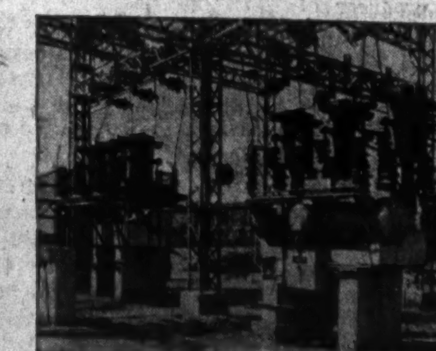
A group of "ENGLISH ELECTRIC" Air Blast Circuit Breakers at the Beauharnois Light, Heat & Power Co.



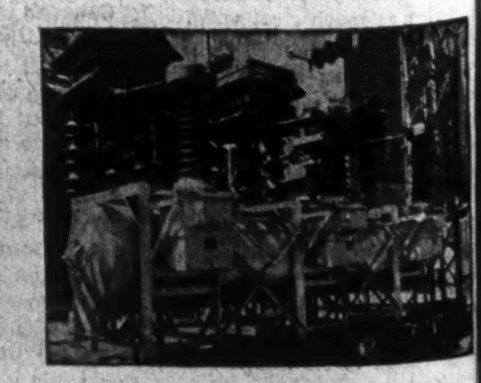
Two 230 KV (Type OOAB) "E. E." Air Blast Circuit Breakers at Shawinigan Water & Power Co., Three Rivers, Que.



Three 138 KV (Type ONAB) "ENGLISH ELECTRIC" Air Blast Circuit Breakers at Atwater Substation, Montreal Light, Heat & Power Consolidated.



Two 69 KV (Type OMAB) "E. E." Air Blast Circuit Breakers at Rosemont Substation, M. L. H. & P.



138 KV (Type ONAB) "ENGLISH ELECTRIC" Air Blast Circuit Breakers at Guy St. Substation of M. L. H. & P.